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AUGUST 1955

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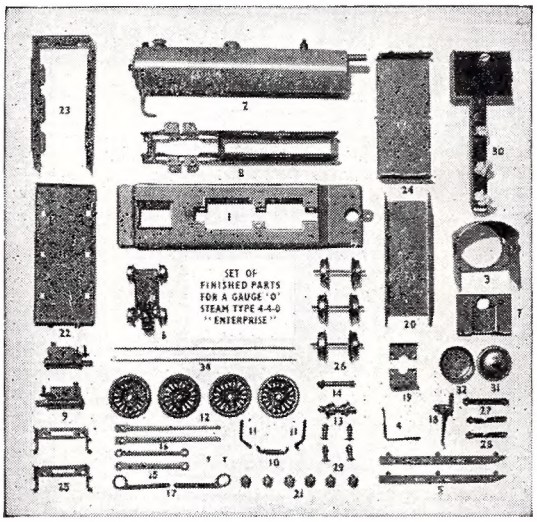

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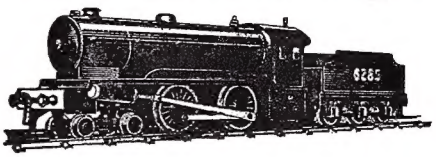

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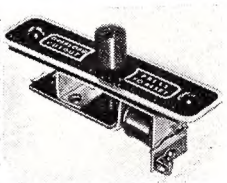

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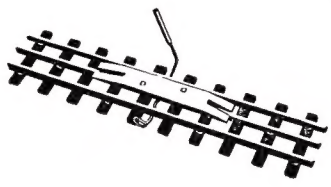

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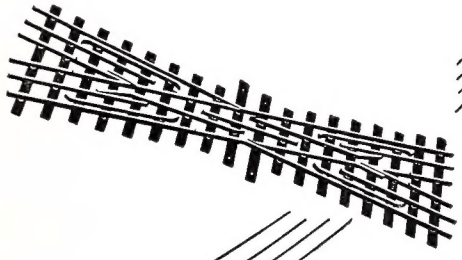

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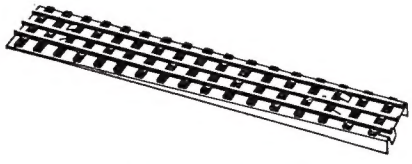

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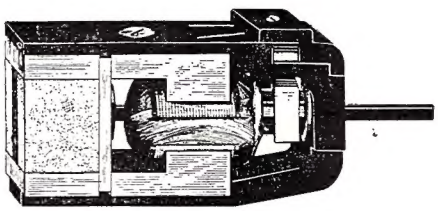

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For the Average Enthusiast Specializing in Small Scale Railway Modelling

VOL. 6. No. 58. AUGUST 1955

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NEXT MONTH

Ken Northwood describes developments on his North Devonshire System, the Railway of the Month for September. The revolutionary 2-10-0 9F, with a Franco-Crosti boiler, is described with drawings and photographs.

THE LOBBY

A GARDEN railway has an undeniable appeal, for what could be nicer than to spend a fine summer evening controlling a layout in the open air—especially if the goods train includes a flat wagon equipped to carry refreshments to thirsty operators !

Of course, it has many real advantages as well. For example, the average garden can accommodate a longer main line than all but the most lavish indoor locations, and it is often possible so to arrange matters that the two ends of a point-to-point system are out of sight of one another, and thus block instruments and bells become a necessity rather than a fad. While complex building construction may be more difficult, sweeping scenic effects—long viaducts, cuttings, tunnels, not to mention rivers and lakes—are all within the bounds of possibility in natural surroundings. Furthermore, where the line is at, or near, ground level, miniature trees and shrubs can be planted to provide scale vegetation.

Outdoor operation demands "O" gauge or larger, for although a few "OO" layouts have been laid in the garden most authorities agree that the difficulties are too great for wholly successful working. This, however, is no disadvantage, for the trade provides ample equipment for the larger scale garden railway and consequently many attractive examples exist and more are being built.

The garden railway has a firm place in our hobby, perhaps because it enables us to combine what might otherwise be the conflicting claims of horticulture and modelling !

COVER PICTURE

The garden railway can easily have attractive natural scenery, as our cover picture demonstrates. It shows a portion of Mr. E. C. Griffith's layout, and the interested observer is Miss Karin Snell.

Photo : E. C. Griffith

The Railway of the Month

CREWCHESTER WITHOUT TEARS

by John L. Ray

Being an account of the latest developments on this well-known " O " gauge garden layout, together with details of the constructional methods adopted.

MATHS was always my weak subject at school. Arithmetic was a veritable *bête noire* and was responsible for the great majority of my detentions. When faced with some abstruse problem such as " What is the square root of four? " I would glance wildly about me, and failing help from my classmates would essay, " Two, sir." That was all right, had it ended there. The shot in the dark often went home, and everybody was happy, until the maths master, not content to let well alone, would add, " And how, precisely, Ray, do you arrive at that astounding conclusion? "

And there I would stand, hot and uncomfortable, vainly attempting to endow with logic a process which had nothing of that quality in it. (I sometimes wonder just what my geometry master would say to answers I could now give him to the age-old question concerning the shortest distance between two points!)

However, Mr. Freezer has been at it now.

I've built a model railway, such as it is. I've sent him photos, a plan of the layout, pages of typescript, and even drawings. He has published them all, and lulled me into a state of smug complacency. He has plied me with the heady wine of seeing my efforts in print. Now look at the dirty great pit he has dug for me—he says, " In your next article perhaps you will give some details of how you built the railway." The mask is torn from my face, the skeleton is dragged incontinently from the cupboard, pride has gone before a fall, and—if you want any more metaphors to add to that mixture—a haughty spirit has gone before construction.

The answer is that the whole thing can be explained in one sentence: " We took some bits of wood, nailed 'em together, shoved some rails and sleepers on the wood, and hoped for the best." You see what you've done, Mr. Freezer? You've exposed a model-basher of the worst kind.

However, just to prove that my vanity is unquenchable, I will try to give a few details of how John Blair and I have " bashed on." John is always very kind about my workmanship, and I've never actually caught him sneering, but his own standards are far higher than mine. He must suffer! There is that jig he made for manufacturing three-foot lengths of straight track (see Fig. 1). It is a beautiful piece of work, made of steel, and it turns out near-perfect lengths of track. The sketch I have drawn is from memory, as John keeps his jig at his home—eighty miles from here!

As already stated, we have moved into a new house, and that meant that when the garage was built we were able to have it made twenty feet long. This gave room for a workbench, and at the same time we had an eighteen-inch-wide shelf built along the inside of the east wall. Being built by professionals, this is the best piece of baseboard in the entire layout. Even the hole in the wall through which the railway emerges was incorporated in the original plans. Little has been done to City Road terminus beyond the construction of two eleven-foot platforms which serve the three lines.

As soon as the railway leaves the garage it enters a cutting (see Fig. 3). The embankments are made of

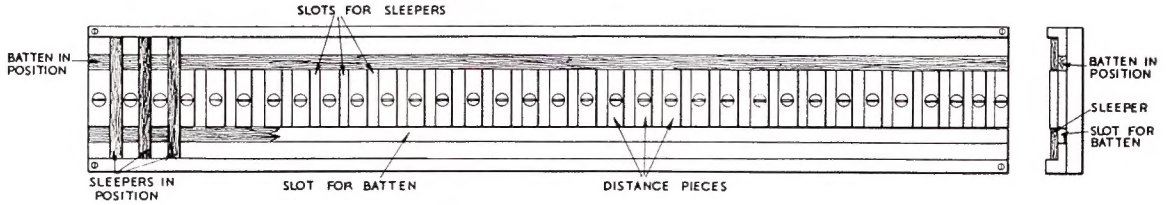


Fig. 1. Jig for " O " gauge track.

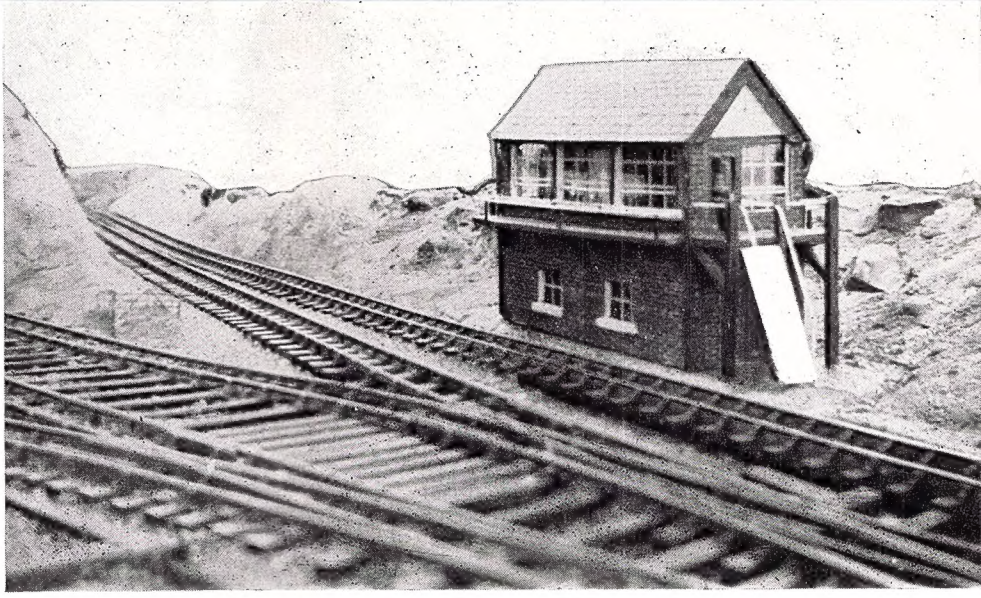


Fig. 2. City Road junction. The progress that has been made here can be seen by comparison with the photo on page 199 of the September 1954 " Railway Modeller."

cement (two sand to one cement), but they are not solid. A visit to the junk-heap provided us with a miscellany of scrap-wood, which was nailed roughly together to conform approximately to the contour of the required embankment. Over this framework was stretched sacking or other old cloth, and on to this the cement was poured. Stones from the garden were embedded to represent outcrops of rocks; paths, streams and steps were incorporated; and the finished job was dabbed briskly with a stiff brush (while the cement was still soft) to give a rough surface. Colour was added by washing with many coats of very dilute paint. Telegraph poles are made of dowelling and matchstalks, soaked in creosote.

Figure 2 shows the three lines from City Road joining the main line, with John Watts's magnificent signal-box in the background. It is impossible to do this signal-box justice in a photograph, for it is detailed down to the last conceivable item inside, including fog-signal locker, telephones, block-instruments, stove, booking log, track diagram and many other fascinating features.

Leaving the junction, and proceeding down the garden, the line becomes a straightforward double track, and Fig. 4 gives some idea of how the baseboard was erected for this. The same principle of cement embankments is continued down this stretch, as it is in a most exposed position, and a strong gust of wind is capable of lifting quite a heavy train off the track. The embankments in fact serve a dual purpose. Not only do they protect the trains, but they provide them with a background proportionate to their dimensions. It is quite amazing how a train which been seen travelling for some distance with the french windows of the house as a " backcloth " suddenly springs to life when it enters a cutting, with telegraph poles and fencing to scale.

As it is quite possible that we shall move Rockhill station from its present site to one farther north, little work has been done here. John Watts has made the buildings ready for the station, and these should look most effective when in position.

Rockhill tunnel is one of the more successful props of the Crewchester line, and Fig. 5 shows the method of construction. A picture of the north tunnel-face appeared in the RAILWAY MODELLER, September 1954, page 200.

Large-radius curves (about 15ft.) south of Rockhill tunnel demanded a much wider baseboard, and this was done very simply. The usual 2in. x 2in. uprights were used, and on to these we fastened a framework of 2in. x 1½in. timber, rather on the principle of a bench. The " table top " is made of 1in. thick boards, 5in. wide. Fig. 6 shows a large area of baseboard immediately south of Crewchester station made in this way. Roofing felt is not used here, but instead 2in.-wide strips of rubber—such as builders use in a damp-course—are laid under the battens. This rubber-strip material can be seen under the third track from the left (the up main) in Fig. 6.

Crewchester itself is built upon two very fine shutters from an old Suffolk mansion. These shutters are laid end to end, and they each measure some 10ft. x 3ft. 6in. x 2in. They are the perfect baseboard, for they are as solid as a rock, and seasoned thoroughly. Fig. 7 was taken looking diagonally across the station in a south-westerly direction, and the lines from left to right are up goods refuge loop, up slow, up main, down main, down slow No. 1, down slow No. 2, and bay. The platforms are made from boards, the surfaces of which are scored with a chisel to simulate planking. From ramp to ramp, the station measures 12ft. 4in., and this accommodates even a nine-coach train.

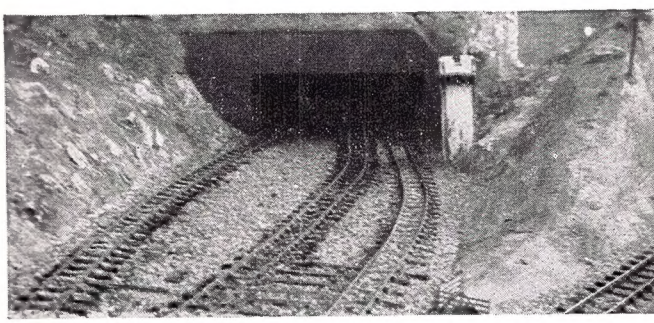


Fig. 3. The cutting outside City Road tunnel.

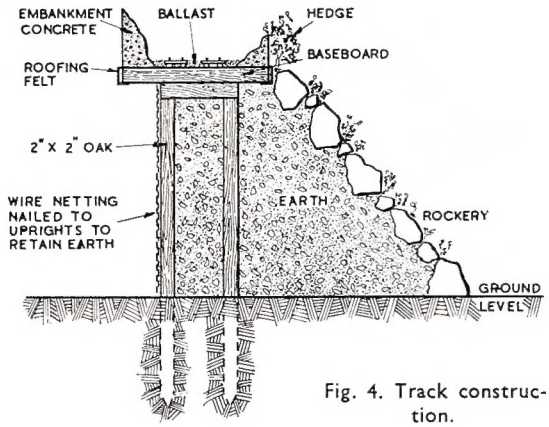


Fig. 4. Track construction.

It is impossible to give details of the buildings—again made by John Watts. Other photographs of these will be found in the November 1953 RAILWAY MODELLER. "Johnny" works on his kitchen table, and his tools are little more than a razor blade and a piece of sandpaper. His medium is hardboard, and the only thing I have never seen him make of this material is the kitchen sink. The windows of all waiting rooms and offices are properly fitted with glass, and those offices which demand discretion are modestly screened with genuine frosted glass. I have known Johnny, faced with the problem of providing an all-important amenity of the station with light, make fifteen abortive attempts to cut a thick piece of frosted glass into a piece about an inch square. Tell him to put in plain glass and paint it over, and he will look up with a pained expression on his face, muttering something about having no coarse-scale gents on *his* station! Posters by Bassett-Lowke adorn the station buildings and walls, and a super-detailed W. H. Smith and Son completes the picture.

Figs. 8 and 9 show trackwork recently completed at the northern end of the garden, and it will be seen that we prefer the transitional type of curve to the radial. John Blair insisted on superelevation, drat him, and since trying this I must agree that I like the effect of a train canted slightly over as it takes the curve.

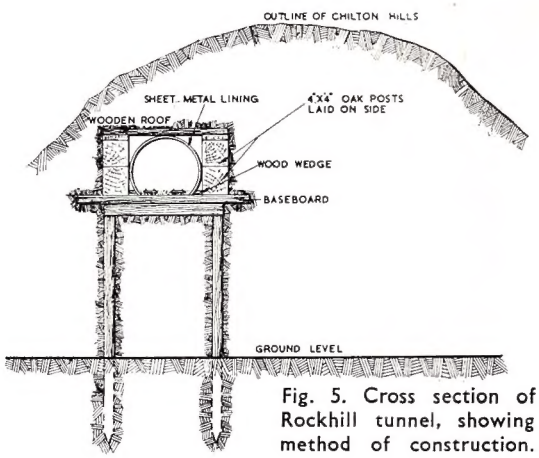


Fig. 5. Cross section of Rockhill tunnel, showing method of construction.

Curved track has always been my special interest, and I have evolved a method which is unorthodox, and yet which seems to give good results.

If two roads are required, I commence with the inner batten, pinning it down at two-inch intervals, and following the line required. A distance-piece ensures that the second batten is kept equidistant from the inner one. A nail punch is then used to knock all pins well down below the surface of the battens. A medium-sized steel smoothing plane is then used to procure the desired superelevation, and, incidentally, smooth out any remaining kinks in the batten. The sleepers are laid next, and a "platelayer's-eye view" along the tops of the sleepers will soon disclose any unevenness—far sooner than any spirit-level or gauge in my possession. The brass rail (already chaired) is then pinned down at one end, with a second pin halfway along, and then one at the farther end. Check is then made upon the "sweetness" of the curve, and any adjustment made. Pins are then placed halfway between the ends and the centre and further checks made, and this process is repeated until the whole length is lightly secured. A nail punch drives the pins finally home. To obtain the correct gauge ($1\frac{1}{4}$in.), triangular gauges are used. It is best to use at least two of these gauges—more if possible, using calipers for a final check.

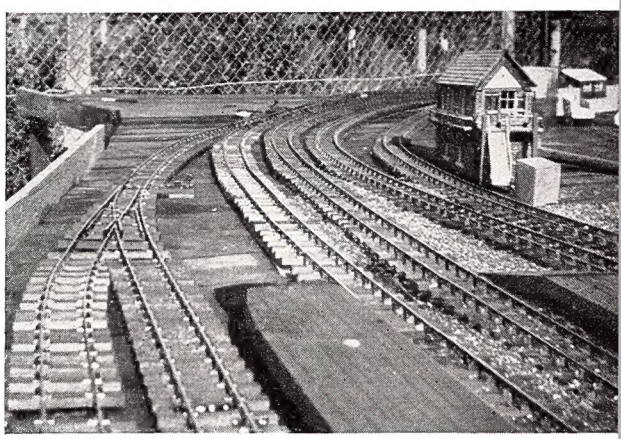


Fig. 6. Crewchester (south end).

And that is all there is to it. The recipe has been enthusiasm in large quantities, a little skill, a little more patience, the hide of a rhinoceros while scrounging raw materials, and the unalterable conviction that this is the king of all hobbies.

Last August, John Blair and I spent two weeks—or as much of two weeks as the English summer allowed—on the railway, and during that period we were able to complete the main circuit. This meant that we could start experimenting with the actual operation of the railway. The beginnings of our long-cherished ambition materialized, and our first block-bells came into being. Six morse-keys (government surplus stores, 3s. 6d. each) were purchased, and six door-bells with varying notes were rewired to give single beats instead of continuous ringing. Powered at the moment by a five-volt long-life battery, these bells are used as follows:

Fig. 7. Aerial view of Crewchester.

No. 1. All traffic from City Road station to Crewchester (both directions).
No. 2. All traffic on the up circuit.
No. 3. All traffic on the down circuit.

City Road box controls City Road station itself, the points where City Road lines leave the main circuit, and the main line as far south as Rockhill tunnel. Two army field telephones link the boxes.

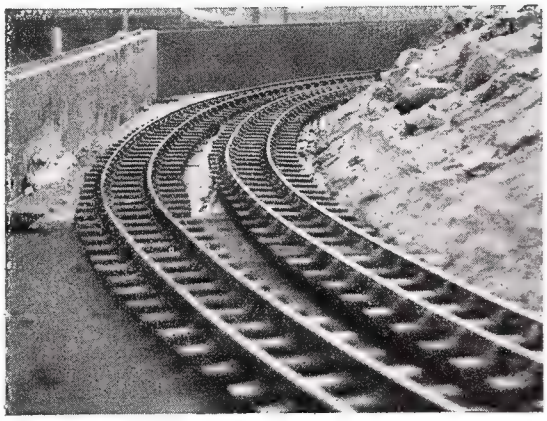


Fig. 8. Trackwork north of Crewchester.

We were immediately faced with the problem of trying to apply railway practice to a system which defied such procedure; in other words, a circular track. When you have two boxes on a continuous line, which is box in advance and which box in rear? Good old compromise came to the rescue, however, and we have evolved a *modus operandi* which, if not in the rule-book, is 100 per cent efficient for our purpose.

To start with, trains dispatched from Crewchester and passing through City Road are "belled" through in the normal way up to the point where they enter City Road section. City Road box does not send any bell-signals to Crewchester while the train is in his section (except in emergency), as the result would be a series of "in section" and "out of section" bells in such rapid succession as to be ridiculous. To take an example, the 5.45 express passenger train, northbound from Crewchester to Carlisle, is due to leave in five minutes' time. "Call attention" is sent to City Road, and when acknowledged "Can you accept express passenger train?" is sent. This is presumably accepted. City Road box sets his road clear for the train to pass through his section. At 5.45 Crewchester sends "Train entering section," and until he receives acknowledgment of this from City Road he does not actually dispatch the train. This provides City Road with an opportunity to make a final check on his points before virtually giving Crewchester permission to dispatch the train. Once City Road has acknowledged this "Train entering section" he may not alter any points or signals, nor offer any further train upon this line, until the train has re-entered Crewchester section, and Crewchester has belled "Train out of section."

This business of trains arriving back whence they departed provided the timetable section with a headache. The 5.45 train left for the north, and at 5.46 the same train re-enters Crewchester from the south, so it is shown on the timetable as an arrival from Bristol.

We can never be sure of more than two operators on our layout, and that is why we have to adapt and modify block-signalling procedure. The present system works very smoothly, and when the timetable is in operation becomes almost automatic.

It is so darned foolproof, in fact, that we are already searching for ways to make it more complicated. Derailments are very rare—except when we have visitors, and then we can be sure of at least three in ten minutes! Visitors, however, are so intrigued by the authentic-sounding bell-signals and complete verbal silence that they soon forget that derailed sulphate wagon on the up goods siding!

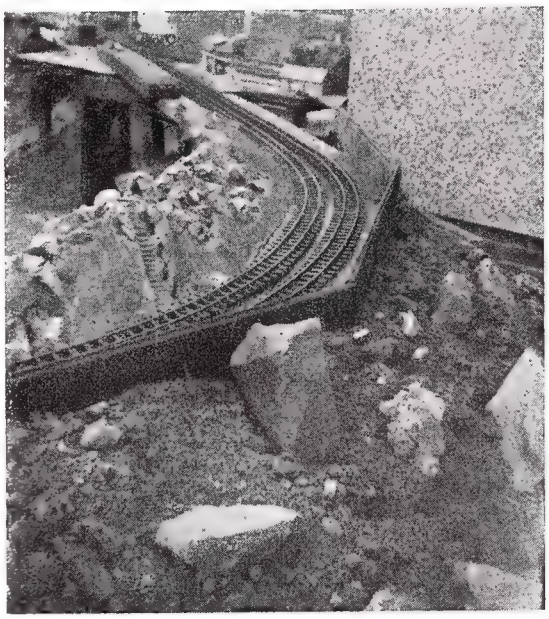


Fig. 9. More new track. City Road junction is visible in the background.

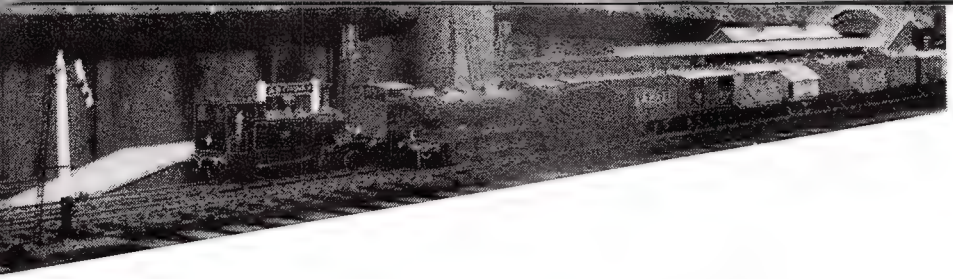


Photo 6. Archway station.

BIGSTON TO

by G. E. Bigmore

(*Continued from page 153 July issue*)

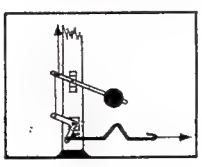
SCENIC EFFECTS

With regard to scenic effects, I am rather at a disadvantage through having to have my line, as previously explained, up on stilts, and being thus deprived of natural embankments, cuttings, tunnels and so on. However, as my line is mostly viewed from the control point in the shed, with much of it disappearing behind dahlias or climbing roses, the lack of such scenic effects, together with the absence of ballast on the track-bed, does not seem to matter very much. Archway station has an all-brass footbridge connecting it to a mythical roadway behind a wall, and a circular water tank, the signals and the signal-box complete the picture here. Between this station and the terminus the only lineside feature apart from signals is a row of cast telegraph poles.

I have mentioned that the line is mostly viewed from the shed, and it is in here that I have attempted to create the right atmosphere with the very limited background space available. The scenery is still in the process of being added to—photograph No. 3 shows the gaps—but the general idea is to convey an impression of a town setting such as one sees at Farringdon Street station on the King's Cross to Moorgate section of the L.N.E.R., where the permanent way is well below the street level, with tall factory and office blocks rearing up above and flush with the retaining wall faces.

Both Bigston and Archway stations are fully lit with 3.5-volt bulbs—of the torch variety where the fitting is not visible to the human eye and pea bulbs where open platform, goods yard or street lamps are in evidence. Incidentally, I find that torch bulbs can be left in their holders on the outdoor section throughout the year without deterioration provided all the metal parts of the bulb are coated with vaseline. The terminus signals are also lit by pea bulbs.

The motive power depot is situated in the gloom of the shed extension (see photograph No. 1), so I have inserted in it a small 240-volt mains lamp, such as one finds in refrigerators. This is connected to the mains side of the power pack and serves the double duty of lighting the interior of the depot and acting as a reminder to switch off the mains before closing down for the night!



Sketch showing signal wire compensator.

MAINTENANCE

A little more time must be spent by the outdoor man than by his indoor counterpart on the maintenance of track and fittings, but I find this all part of the fun—with the possible exception of the bi-annual creosoting, which can be a bit tedious. This job is done in the late autumn when the "running season" is finished and it involves applying creosote to everything on the outdoor section below rail level. The surface of Archway station platform, being concrete, needs no attention, but the wooden platform sides, buildings and awnings seem to require painting every other year to keep them in good order. The signals, being of all-brass construction, very seldom need a coat of paint and then it is only to freshen up the colours; furthermore, they are attached to the baseboard by brass screws and I usually dismantle these fittings and store them in the shed for the winter.

Once or twice a month I oil all outdoor slide chairs, bell cranks, point rod guides and signal parts, whereas once a year seems to suffice for the similar fittings in the shed.

The only breakages experienced have been two copper signal wires which happened to span just that place where the neighbour's cat liked to land or take off when jumping over the fence, but a strip of wood laid alongside and higher than the wires has prevented further damage.

Contrary to expectations, I have hardly ever had to adjust signal wires on account of temperature variations, but just in case it ever does become necessary I have employed a very simple gadget described some years ago in the model railway press, but which I think can bear repetition if only for the sake of newcomers to the hobby. The gadget consists merely of a length of $\frac{1}{32}$in. brass wire interposed between the signal wire and the angle crank on the signal post, with the brass wire bent into a V shape—see sketch. The V can easily be opened out or closed slightly to give any necessary adjustment and it is strong enough to pull a considerable weight.

At the "opening of the season," usually just about the time of the Model Railway Exhibition at Easter, I sandpaper the rail surfaces and stud heads over the whole system. Once this is done all I have to do on future running sessions is to brush the track with a soft-haired brush to remove the usual accumulation of London dirt from the rails and then let an engine push round a special wagon fitted with a collector shoe arranged to hold a strip of fine sandpaper. I have found that with twelve volts it is advantageous to clean up the stud heads in this way, but the studs in the shed never have to be touched. (No doubt a 24-volt supply would eliminate even this small chore.

ARCHWAY

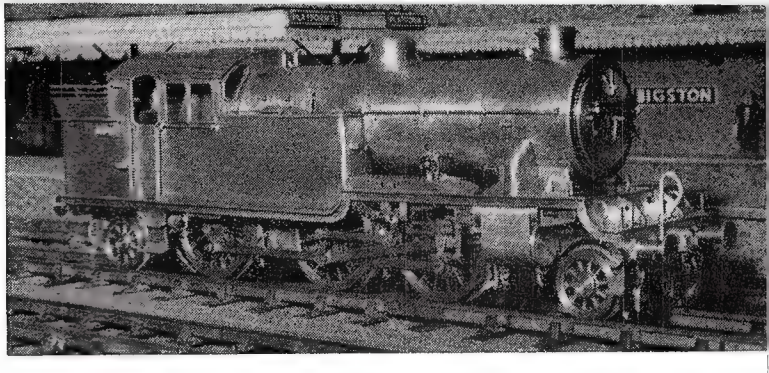


Photo 7. V1 class 2-6-2 tank, unpainted, at Bigston station.

Part II

(Conclusion)

but I have had no experience with the higher voltage.) It is also necessary to sandpaper the short lengths of rail where the track-circuiting is installed, because if this is not done, and the current is switched on to move an engine, the poor old 3.5-volt bulb on the control panel somehow receives the full benefit of an additional 12 volts—much to its detriment. Do not ask me how this happens, because I am no electrician; I only know it does happen and that the cure is to keep the rail surfaces at these points absolutely clean. All this preparation may sound a lot, but it takes me under ten minutes—except after rain, when some time has to be spent in wiping the rails dry with a piece of old towel.

One other point in connection with satisfactory running is to keep collector shoes and alloy driving wheels clean; I use lighter fuel for this job. The treads of cast-iron driving wheels rarely need cleaning.

ROLLING STOCK

I will not dwell at any length on rolling stock, as I feel that a detailed catalogue of one's possessions in this respect can be quite dull and uninteresting to other people. Suffice it to say that the inhabitants of Bigston are given an adequate service with two suburban rakes (one L.N.E.R. articulated and one North London Railway), one train of main line stock and a parcels train—all home made—plus a variety of goods stock, the majority of which are home produced. Three commercial locomotives (4-4-2 Class C1, 0-6-2T Class N2 and 0-6-0T Class J52) and four home-made engines (0-6-0 Class J6, 4-4-0 Class D2, 2-6-2T Class V1 and 4-4-0T N.L.R.) provide ample motive power. Photograph No. 7 shows the V1 tank, prior to painting, standing in the terminus, and photograph No. 6 depicts the other two home-made engines at Archway station.

OPERATION

The whole line is designed to be operated by one person at the signal box and control panel in the shed, but in practice it is advantageous to have a "shunter-cum-porter" standing by for coupling, uncoupling and turntable duties at the terminus. I like to assign that job to myself and let my visitors run the line, which they can do quite easily with the aid of the track diagram hanging on the wall. One of my friends has been kind enough to work out some timetable running, including of course a working schedule for empty stock and light engine movements, and this does add considerable interest when operating.

There is something very attractive about night operating, and on such occasions we work the layout entirely by the lighting from the 3.5-volt supply. A train leaves the terminus under two signals at green and literally disappears into the night, and with the shed window shut the sound also fades as soon as the outward end of the tunnel has been cleared. After what seems an age, the first track-circuit lamp glows on the control board, followed at regular intervals by the other lamps, and we know that all is well.

Installed over each lamp is a pointer which is set to either C or T, i.e. chimney leading or tender leading, whenever a train stops in a particular section. Experience has shown the necessity for this precaution, because once three or four trains are in various sections at the other end of the garden it is difficult to remember, especially with tank engines, which way a particular locomotive is facing. Without the pointer arrangement it is the easiest thing in the world to switch current into a section with the object of bringing a train forward, only to find that it is gaily going half speed astern, this being brought to one's notice by the crash in the night as it collides with the train in the rear!

Another point which comes under the heading of operation is the use of head codes and tail lamps. Until a short while ago I had rather cheated on head codes, using ex-Great Eastern Railway white discs instead of ex-G.N.R. white lamps, as these were easier and quicker to make, but I have now taken the plunge and made a dozen head lamps (two for each L.N.E.R. locomotive) fitted with straw-coloured brilliants, which give a good impression of an oil-lamp flame; tail lamps are all fitted with a red brilliant such as can be found in some Woolworth jewellery, and all vehicles likely to be at the end of a train are fitted with lamp brackets to accommodate them.

As all trains must have an end, so must all articles, and I think this is a good place at which to stop talking about my line.

In conclusion, I should like to acknowledge my indebtedness to Mr. L. H. Codner, who took the photographs for me.

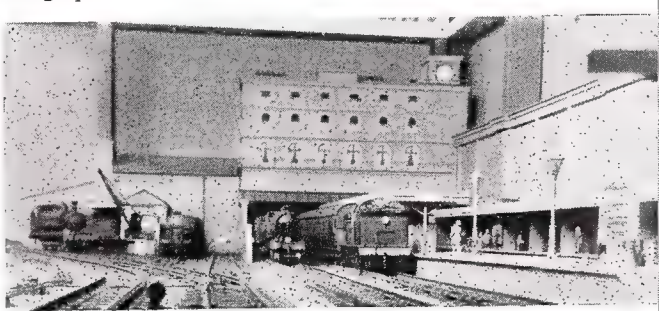


Photo 8. Rail-level view of Bigston station.

How to make

"O" GAUGE FLAT-BOTTOM

TRACKWORK in most gauges can be quite an expensive item, and when the chosen gauge is "O" or larger the cost of rail, sleepers, chairs, etc., soon adds up to a formidable sum. Some of us try to keep costs down by widening the sleeper spacing, but only at the expense of the appearance of the track, while others use steel rail (which is not the best for electric conduction) or brass (which never looks the right colour) because nickel silver is so expensive. Fortunately there is now an alternative material on the market with which track can be constructed at the modest sum of about 2/- per yard finished. It is alloy flat-bottomed rail,* stands $\frac{3}{16}$in. high and is suitable for standard "O" gauge, is dead to scale for "1" gauge and can be used for narrow gauge prototypes in 10mm. scale and over. It is completely rustproof and can be used for both indoor and outdoor railways and it looks like the real thing—steel. It is a good conductor of electricity, but some doubt has been expressed about its suitability for the purpose out of doors. Some find that alloy rail is more satisfactory than brass or nickel rail, while others have found that a grey dust forms on the rail which prevents conduction. It seems partly due to climatic conditions and the only way to find out is to lay a short length in one's own locality.

The following method of laying flat-bottomed track has been evolved by the writer. It is intended in his case for a garden railway and represents a 3ft. narrow-gauge track, built to 10mm. scale with a gauge of 32mm.—a slight compromise in order to enable standard gauge "O" equipment to be used. The basic principle of this method of track construction is to spike the flat-bottom rail down to the sleepers, but if a really satisfactory track is to be constructed there is just a little more in it than that, as we shall see.

The flat-bottom rail arrives in 4ft. lengths and although most of the lengths lie perfectly flat some may have a slight twist. The first step is to put this right by holding one end in a vice and twisting the other until the whole length will lie flat. An alternative method favoured by the writer is to use two pieces of wood in which holes to the shape of the rail section have been cut (Fig. 1). If these are threaded on the rail they can be manipulated until any twist in the rail has been removed. It was considered desirable to avoid the use of battens out of doors, since these have a habit of warping and distorting the rails (they also increase the cost of construction), while at the same time a rigid track was sought in which there was no possibility of the sleepers moving about. This was achieved by making V-shaped recesses in the flanges of the rails wherever the holding-down spikes are inserted and should be clear from Fig. 2, in which a length of rail which has been marked off for sleepers at 1in. intervals has received the V-cuts with a triangular file. As the alloy is fairly soft it will be found that these cuts can be made quite easily by holding the rail in one hand while it rests on the table, and the file in the other.

Sleepers were cut from $\frac{1}{8}$in. pine wood $2\frac{1}{2}$in. long and 3/10in. wide, and were soaked in creosote for a week or so. The method of assembling straight track is to nail sleepers at 9in. intervals on a flat piece of wood with $\frac{1}{4}$in. veneer pins, leaving the heads protruding so that they can be easily withdrawn when the track is finished—Stage 1 (Fig. 3). (In the diagram the initial sleepers are shown at 4in. intervals for simplicity.) One length of rail is then nailed to these fixed sleepers, the eye being used to see that the rail is dead straight—Stage 2. It is best to make a hole for each nail with a small awl, the position being provided by the "V" cut in the rail flange. The rail is then fixed down with $\frac{1}{8}$in. track spikes. Either brass or steel nails can be used, but the disadvantage of brass out of doors is that they may lift in dry weather whereas steel will rust in. I have tried inserting the nails with one of the spring loaded nail pressers sold for this purpose, but I find it impossible to get such a firm joint as can be obtained by driving the nails home with hammer and an ordinary steel press tool with a recessed end. It is important, moreover that the nails should be well up against the "V" cuts and it is advantageous to drive them in at a slight angle. The third stage is to lay the rail on the opposite side, using a track gauge to locate it in place, while the fourth stage is to insert the remaining sleepers and to nail them in place. The veneer pins holding the fixed sleepers can now be removed and the length of track lifted up. A coat of brown paint is required on the sides of the rails and the track is ready for laying. Joints between the rails are made by filing away the flat-bottom part of the ends of the rails for about $\frac{1}{4}$in. and using ordinary "O" gauge fish-plates.

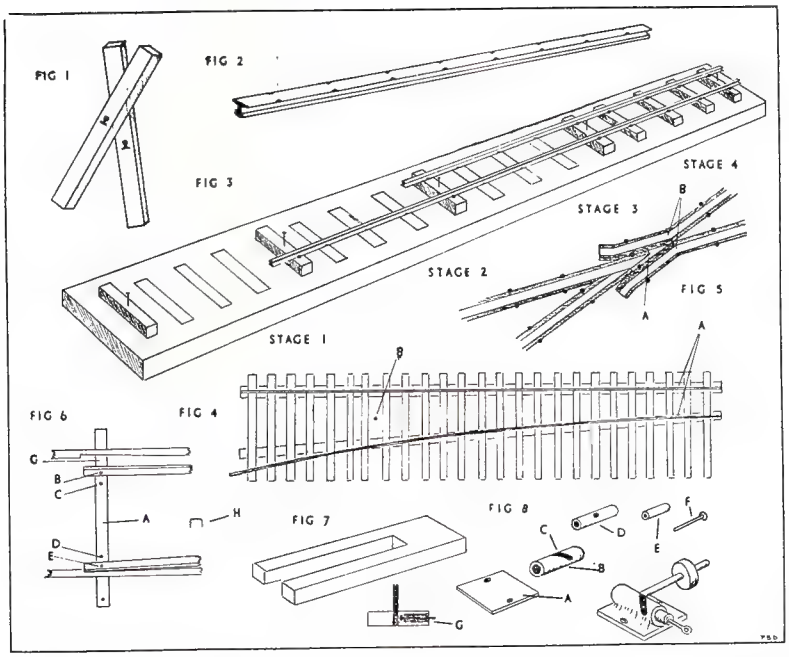
The construction of curved track calls for a slightly different treatment. I find it more convenient if this is built up in 2ft. rather than 4ft. lengths. A segment of the desired radius is marked on a piece of flat wood and at the same time the position of each sleeper is indicated, as in the case of straight track. The method is then to proceed as for straight track, only it is best to pin sleepers down at, say, 4in. intervals instead of 9in. intervals and, most important of all, the rail must be bent to the correct curve before it is laid. This can be done quite easily with thumbs and fingers. It will also be found that the "V" recesses in the rails can only be cut *after* the rail has been bent to shape and the positions of the cuts pencilled on the rails by holding in the correct position on the sleeper markings.

Point construction in flat-bottom rail is fairly straightforward. Although perhaps not essential, I prefer to use battens at the points—they prevent any distortion of the rails. Rather than attempt to judge the correct length of the sleepers before construction begins, I have found it best to lay down about 2ft.

* Obtainable from Messrs. Fenlow Products Ltd., Springfield Lane, Weybridge, Surrey.

TRACK

by Peter B. Denny



of 8in. sleepers at 1in. spacings (sufficient for two turnouts), having first laid down sufficient battens in the appropriate places —Fig. 4. The outer rails are then laid, remembering to file small recesses for the point blades "AA." Then locate with the track gauge the point "B," which must be that nearest to "AA," which is 32mm., or whatever the gauge is, from both the outer rails. This indicates the position of the point of the frog. The frog can then be built up by filing short lengths of rail to the correct shape. It will be found best if these are arranged as in Fig. 5, and it will, of course, be necessary to remove the protruding flanges of the rails for a few inches on both the inside legs of the frog. The "V" recesses which hold the nails will prevent any movement of these rails since it is not easy to solder alloy. The switch blades can now be prepared by filing the rail to a suitable taper. It will be found that it is only necessary to remove metal on one side of the rail so that the switch will sit snugly in the recesses which have previously been filed on the outside rails. These can now be fixed in place after suitable "V" cuts have been made, but the last six inches of the blades should not be fixed in order that they may be free to move. Using standard gauge "O" dimensions, I find that if the two flanges of the rails are butted together the clearance left is correct for check rails, while on 6—8ft. radius points I allow $\frac{3}{4}$in. between the point of the frog ("A" Fig. 5) and the bend in the rails "B." In making this bend as sharp as possible it will be found helpful if a small cut is made in both sides of the flange. The tie bar (Fig. 6) consists of a piece of $\frac{1}{8}$in. x $\frac{1}{16}$in. brass bar "A" in which four holes, "B," "C," "D" and "E," have been drilled in such a way that the two outer ones, "B" and "E," coincide with holes drilled in the inside flanges of the point blades, allowing a clearance of $\frac{1}{8}$in., "G," between the blade and the outside rail. Small pieces of brass wire shaped as "H" are then fitted into the holes and soldered at "C" and "D." The advantage of this method is that if necessary the tie-bar can be removed without having to lift the point itself.

Point levers also can be quite expensive items, so the following method of construction was worked out: To a piece of $\frac{1}{16}$in. brass $\frac{3}{4}$in. square "A" (Fig. 8), $\frac{3}{4}$in. of $\frac{5}{16}$in. O.D. brass tube "B" was soldered. In this a cross cut "C" was made with a hacksaw and enlarged with a file to $\frac{1}{16}$in. wide. A piece of $\frac{5}{16}$in. tube "D," which would pass within the tube "B," was drilled through $\frac{1}{16}$in. and arranged so that a piece of silver steel rod for the point lever would form a force-in fit. Within this latter tube "D" a further, but this time shorter, length of tube "E" was inserted and soldered in place so that it stopped just short of the hole that was drilled for the point lever. This should be clear from "G" (Fig. 8). A $\frac{3}{4}$in. brass nail "F" was then inserted in the tube "E" so that its head was between the end of that tube and the point lever passing through the hole in the tube "D," this nail being free to pivot. The tube "D," complete with nail, was then inserted in the tube "B" and the point lever passed through the cut "C" and forced home into the hole in "D." The protruding part of the nail "F" can be flattened and drilled and a length of brass wire passed through for soldering to the tie bar. In order that the point lever might be integral with the point, a pair of special sleepers were cut containing a base on which the point lever could be mounted (Fig. 7). It will be found that when the point lever is moved the tube "D" turns and at the same time, on account of the cut "C," slides in the tube "B," while the nail "F" is moved laterally with "D" but does not turn with it. A small circle of lead cast in a wooden mould is forced on to the operating lever and the point lever is complete. It all sounds very difficult when described, but actually there is very little in it and six such levers were turned out in one morning. Of course, if it is possible to tap the tube the parts "E" and "F" can be dispensed with and a suitable bolt used instead of the nail, but not all are able to do this.

Some of this track, including pointwork and point levers, has now been laid out of doors for nearly two years and has shown no signs of deterioration, and it can be recommended as a cheap and effective method of track construction.

MAKING A

PLASTER ROCK FACE

by A. C. Wehrli

THE rock face illustrated in the picture was made by the method described in the April issue. The master itself was produced by selecting pieces of anthracite showing good strata.

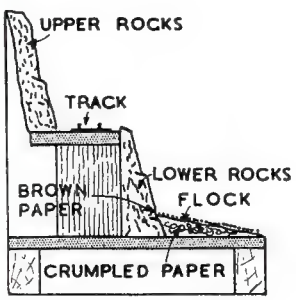
A quantity of plasticine was rolled out to about $\frac{3}{16}$in. thick and then pieces of the anthracite were cracked and bedded into this, until the requisite area had been covered. After the mould had cooled, the anthracite was picked out piece by piece; the surplus mould material which had penetrated between sections was then cut away before making the casts.

The section itself was built on a framework of wood in the orthodox manner, the track-bed being covered with half-inch softboard. Prior to laying the track, however, the top rock section was glued in position, the sections interlocking. The grass slope was first filled with crushed newspaper, then covered with brown paper, and stuck top and bottom. Croid glue was then warmed and spread thinly over the brown paper, dusted with flock and the surplus blown off. The lower rock section was then glued in position. Broken-off sections of rock-face were then stuck *ad lib* on the grass section, well bedded with glue and flock.

The sleepers, consisting of grey cardboard cut to size, were then glued to the bed, this having first been given a liberal coat of Croid; the spaces between were then sprinkled with maw seed. The rail bases were then given a coat of glue and stuck in position. When dry, Peco spikes were driven in position, and the lower sections of the rail given a further coat of glue, this being sprinkled with brown flock.

To complete the job the rocks were painted with water colours, and a thin coat of glue was applied spasmodically to odd rocks, this being dusted with green flock to add realism and make repeats less obvious. This section of the layout, which is only thirteen inches high, was planned to cross the window.

Many visitors to the Model Railway Exhibition admired the excellent scenic set piece by A. C. Wehrli and C. H. Millen on the narrow gauge stand. In this short article Charlie Wehrli describes "how they dun it."



It Keeps Falling Off! Part 3

CURVES

by P. E. Barnes

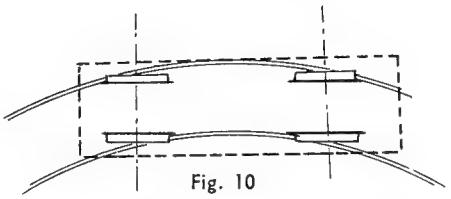


Fig. 10

Even a quite modest and humble vehicle can produce a surprising number of excellent reasons for not going round a curve, and while it is possible to refute many of them a point is reached where it just will not go, and that is that. Unfortunately, it is not possible to generalize very much on the subject without introducing so many conditions, exceptions, qualifications and provisos that the answer reads somewhat like a politician trying to say yes at a peace conference. In the April 1953 issue of the RAILWAY MODELLER (Advice Bureau) it is stated, "The question of minimum radius is therefore directly related to the actual locomotive and no general rule can safely be laid down." That puts the matter in a nutshell.

Fortunately, in this article I am not responsible for telling you how to get vehicles to run round curves, but only for telling you how to find out why they do not—the rest is up to you! In the main, however, the problem is the same as any other derailment problem—there must be a reason or reasons why a vehicle derails and the first step is to find it or them. Here, as before, the most important asset is common sense.

As vehicles run round curved track getting sharper and sharper, by far the most frequent fault to show itself first is some unwanted contact between the wheels and the bodywork or the chassis. Fig. 10 shows a selection of locos and coaches on curves, and the points where this contact is likely to be made. I have deliberately excluded from this the case of the six-coupled loco with flanges on all its wheels, which, like the six-wheeled coach, is not likely to be found on the layout of the inexperienced modeller. In studying this it will usually be fairly clear what may be done to improve things by preventing the offending parts from touching. In case A the frames can be "set" slightly, so that the axle can slide farther across. In B it is possible in most cases to attack the frames with a file until the pony truck will swing under them. Where, as in cases C and D, the contact is between the wheels and parts of the body, there are various solutions which may or may not be applicable to your particular case, but which fall into two groups—to alter the bodywork or to alter the wheels. Many parts of a finished coach or loco are invisible when it is on the track, and it may be possible to file or cut away a little behind the cylinders in case C or to cut a shade away from the inside of the solebars in case D. Sometimes there is a pair of steps or a truss rod which can be repositioned or even sacrificed altogether without spoiling the appearance too much. The second line of attack is to alter the wheels, by fitting smaller ones, so that when the bogie or pony truck swings to one side the wheels pass under the point where they would touch. This may mean other minor changes, such as putting thicker washers on bogie pins to bring the floor of a coach up to the proper level again, or fiddling with the couplings if these are of the type attached to the bogies, so that they will mate with those of other vehicles. Common "savvy" again!

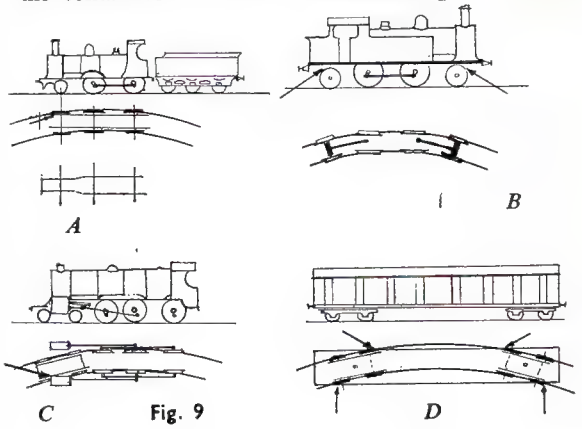


Fig. 9

Fig. 10 shows the extreme case. The wheels are at such an angle that even if the flanges do not wedge tight they will be pressing against the side of the rail, so that the least irregularity, such as a rail joint, will result in them climbing up and over. A few moments of meditation will show that this will occur in its worst form with vehicles having a long, rigid wheelbase, such as six-coupled locos or six-wheeled coaches, and that it is no good doing anything to the centre axle, not even removing it! Further meditation will also show, or you can take it from me, that there are some lessons to be learnt, far too many in fact for me to list them all here.

1. With the wheels at such an angle the flanges are certain to jam in check-rail gaps. This is why, even if you use sharper curves elsewhere, pointwork must be more easily curved.

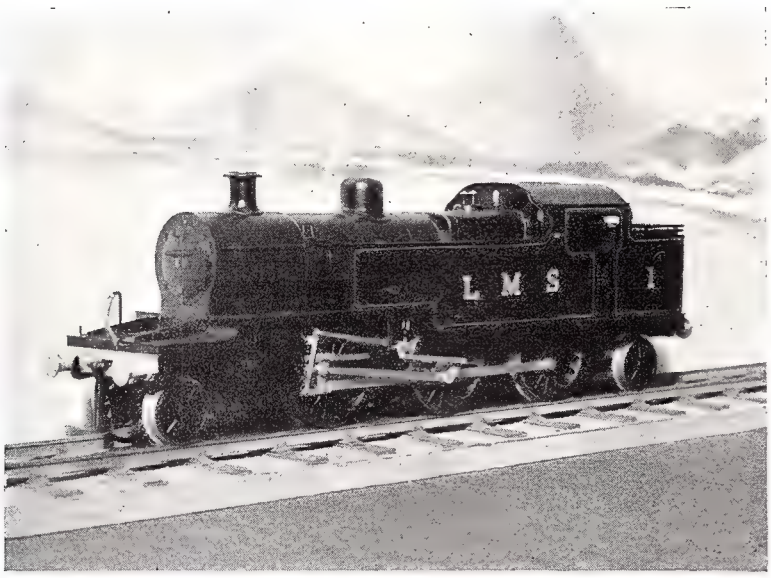
2. In "EM" gauge, where there is less side play between the flanges and the inner faces of the rails, curves must be easier than in "OO" gauge for working the same types of stock.

3. While a three-foot-radius curve will take almost anything in "OO," and quite a bit in "EM" with some fiddling about, if you use curves sharper than this you are for ever cutting yourself off from a very large range of possible models.*

But I could go on like this for hours without really adding much to the general sense of things, which is that trains do not derail for fun, but because something is wrong. Find out what this is, and see if you can put it right. Above all, do not put the right thing wrong by applying somebody's absolutely infallible remedy before you have found the nature of the disease.

So goodbye, and good running.

* To save possible heartburning, I would like to say that, while I am in agreement with the ideal of a three-foot radius, most "OO" models, *if built to do so*, will go round a two-foot radius. We once, for the fun of it, ran a 28xx 2-8-0 round Maurice Dean's old Portreath Branch, where the radius was no greater than two feet anywhere.—ED. R.M.



TWO NE
FOR
SHERWOO

by N.

Photos by

RECENTLY two new locomotives have been specially built for the Sherwood Section, increasing the total engine stock to twenty-eight, which has meant that a larger percentage of "spares" is now available to maintain the full services in the event of one or more locomotives being in works for repair or maintenance. Construction of both locomotives has, generally speaking, been on orthodox lines. The first to be built was a model of an L.M.S. Fowler 2-6-2 tank as running in the middle 1930s. More recently, as they have passed through the shops, a number of these engines have been fitted with an enlarged chimney and outside steam pipes; but the model shows the locomotive in its original condition.

Among the mechanisms we had on hand was a large Hornby No. 2. This had been acquired secondhand some time previously, but was in extremely good condition and as far as could be judged was a powerful and steady-running motor. As was described in the September 1954 issue of the RAILWAY MODELLER, we experimented with this mechanism against the drawing of the 2-6-2 tank and found that by angling it as was done for the Midland 0-6-4 tank (see diagram 5 in that article) it would be just possible to incorporate this motor in the model. Thus the chassis was built up, and in order to facilitate the removal of the mechanism for repairs or to replace wheels with broken flanges (which are not as uncommon as might be expected) each cylinder with all its appropriate valve gear was arranged so that it could be removed in one assembly, which makes the awkward work much easier.

By and large the construction followed the standards set by the most recent locos on the line; 28 gauge nickel silver being used for all parts with the exception of the footplate and the tank and bunker sides. Many years' experience has shown the need to strengthen these particular parts, due to the need to grip the locomotive while winding, and here 26 gauge was used. In addition, strengthening gussets were inserted in the tanks where the footplate rises in order to overcome the natural weakness at that point. A Stanier 2-6-4 tank after nineteen years' service on the line showed decided "hollowing" here. Buffers were turned in nickel silver, as is the present standard, not because die-cast buffers have been unable to stand the strain of many years' constant operation but because the turned ones give a cleaner and sharper appearance. Likewise the use of die-cast smokebox doors was discontinued some time ago and the smokebox door was built up from thin sheet, which simplified the addition of the extra details now standard to the line, quite apart from the fact that die-cast smokebox doors are not available in all suitable sizes. The boiler mountings were turned up specially from brass rod, while the handrail knobs were made from nickel silver wire filed half round and bent on the handrail wire. We discontinued the use of the steel split pins which had previously been used, owing to a tendency to show rust after some years' service, and no locomotive has been built with these steel split pins since the war.

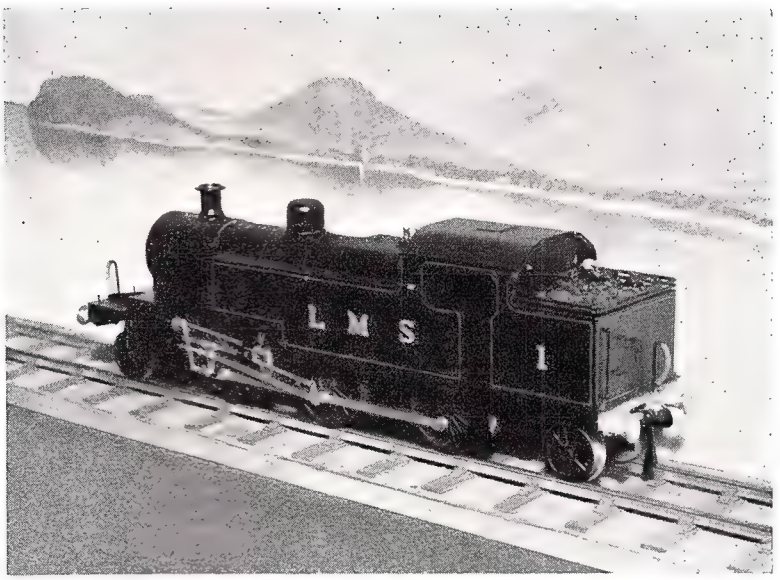
The 2-6-2 tank was tested out on the Model Railway Club test track, where she lived up to our expectations and proved that "handsome is as handsome does" by hauling a mixed train of seven coaches and parcels vans 120 feet on one wind. Moreover, she is exceptionally quiet. The locomotive is now employed on the suburban services radiating from Nottingham, where she is complete master of her job and will haul all normal scheduled trains and still have an adequate reserve of power for emergencies.

The other locomotive is a model of a Midland Johnson 2-4-0, a most unusual loco to be modelled in clockwork. In the spring of 1954 we acquired a secondhand Marklin mechanism which, although quite powerful, was only 53mm. high from the driving axle to the top of the unwound spring. It seemed that this mechanism could be incorporated into quite a small-boilered locomotive. A 2-4-0 on the line had been a dream for many years and one which we all felt was not at all likely to be fulfilled! But we found that by angling this mechanism the height could be reduced from 53mm. to 43mm. and the 2-4-0 came into the realm of possibility. We deliberately chose the class of 2-4-0 with 6ft. 3in. driving wheels, as it

LOCOS THE SECTION

Eagles

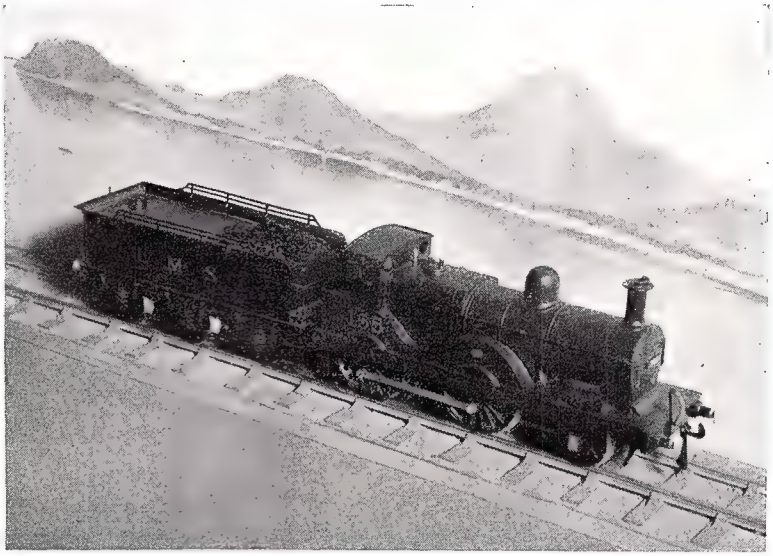
J. Kelley



was felt that the smaller the driving wheel the more powerful the finished locomotive was likely to be, as well as giving that shade more room in the boiler for the mechanism to be fitted. Furthermore, very few models have been built of the 6ft. 3in. class, especially in their final condition, and thus she would be a more unusual model. A drawing of a 6ft. 9in. 2-4-0 from Skinley and a broadside photograph of a 6ft. 3in. 2-4-0 from the London Midland Region gave us the basis from which the model was built. Construction generally has been similar to the Fowler 2-6-2 tank, but a lighter material, 30 gauge nickel silver, was used for the tender, with the idea of keeping the weight of the finished model to a minimum, thus assisting in the climbs of the main banks on the line. Actually it was found that the extra difficulty of keeping the thinner material flat on the large surfaces of the tender possibly outweighed the advantages of reducing the weight, particularly as the reduction of weight turned out to be very small.

This locomotive has proved a useful as well as unusual addition to the stock of the Sherwood Section. She is mainly used on the cross-country service between Bradcaster and Port Trent, often hauling a train of four six-wheeled coaches, and she helps to create a real old-time atmosphere. In addition she works the daily parcels train to Gretley Colliery and occasionally also local freights, but her "high spot" is reached when she is rostered to haul the Bradcaster portion (consisting of three main-line bogie coaches) of the through trains from Nottingham Castle, which divide at Rufford Market, the first portion proceeding to Trent Town.

Both locomotives are finished in the black with red lining that was standard on the L.M.S. for secondary passenger engines in the middle 1930s. Thus they conform to the correct style in use in the autumn of 1937, to which date-line the Sherwood Section is built, but it must be said that this has brought many protests at not painting the 2-4-0 red! It certainly does seem strange to see a model of this class finished black. These models were on show at the 1955 Model Railway Club Exhibition.



Above: Two views of the new Fowler 2-6-2T for the Sherwood Section.

Right: This excellent model of a Johnson 6ft. 9in. 2-4-0 clearly shows that clockwork locomotives need not have excessively high boilers.

SOME CAMBRIAN GOODS STOCK

Drawings and notes by M. E. M. Lloyd

13-TON BRAKE

The information on this van varies. According to the "Railway Magazine" for October 1903, the dimensions are as shown on the drawing (18ft. x 8ft.) and these are the dimensions shown on an old trade blueprint. British Railways give the date of building as 1878 ("Railway Magazine" date—circa 1900) and the dimensions as 16ft. 8in. x 6ft. 8in. There is a good photo of this van in the "Railway Magazine" for October 1903, and as far as one can judge the latter dimensions are wrong.

Construction is straightforward, the only points worth noting being that the solebars are covered by steel plate about 5/16in. thick and that screw couplings are fitted.

Another number of this type was 10. Condemned in 1922.

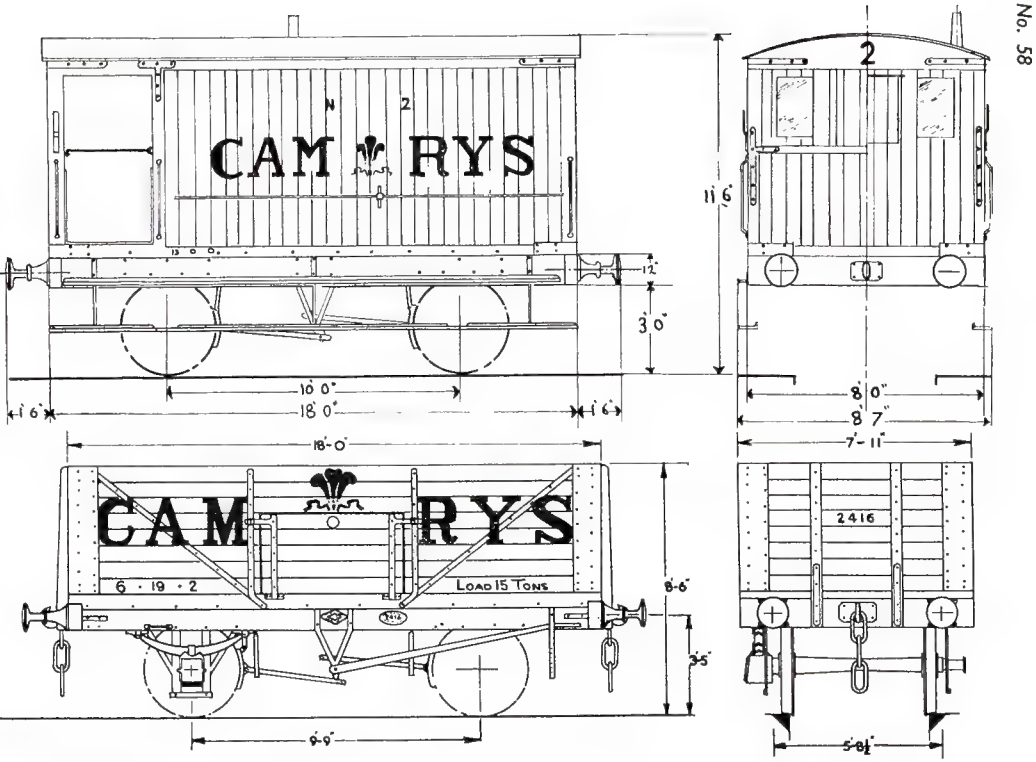
At some time during their careers these vans were fitted with end stanchions.

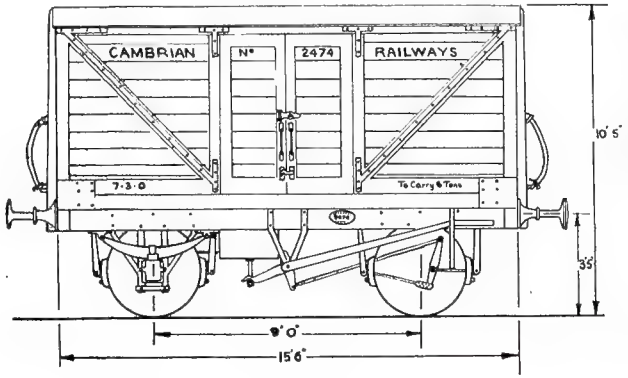
15-TON COAL WAGON

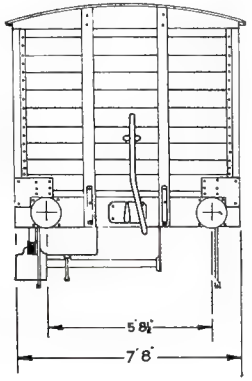
Fifty built in 1903 by Pickerings. Solebars covered by 5/16in. steel plate. About 1915 some may have been lettered "Cambrian." Brake gear on one side only.

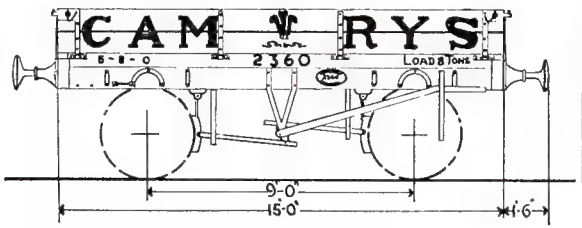
6-TON FITTED VAN

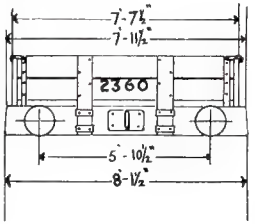
Built about 1905. Screw couplings. Doors slide inside sides. Solebars and doorway covered by 3/8in. steel plate. There was a similar non-fitted type, but I have not yet completed my researches on this. Brake lever on one side only.











8-TON DROPSIDE WAGON

Nos. 2350-2399. This batch was built in 1902 by Messrs. R. Y. Pickering & Co. Ltd., of Wisham. Construction was straightforward. The last of these wagons condemned was No. 2366 (G.W. No. 31883) in June 1932. Brake gear one side only. Some G.W. equivalent numbers for these wagons are 2362-4 (G.W. 21877-79).

Prototype of the Month

TILE HILL

L.N.W.R.

by C. Gordon Watford

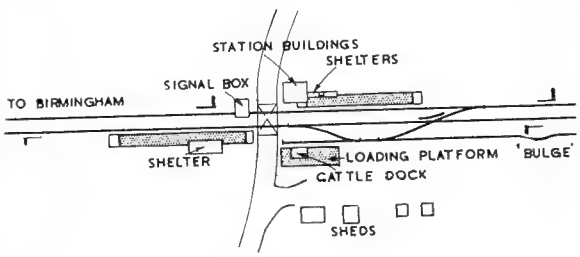
Station buildings from the platform side. Note that there is a flat-bottom track on one and bullhead on the other of the main lines.

ONE is apt to get rather tired of seeing the same old kind of station at every model railway one visits, and in an attempt to get away from the more "popular" type of station design I suggest modelling the layout at Tile Hill. This is a small station right out in the country, on the secondary main line from Coventry to Birmingham.

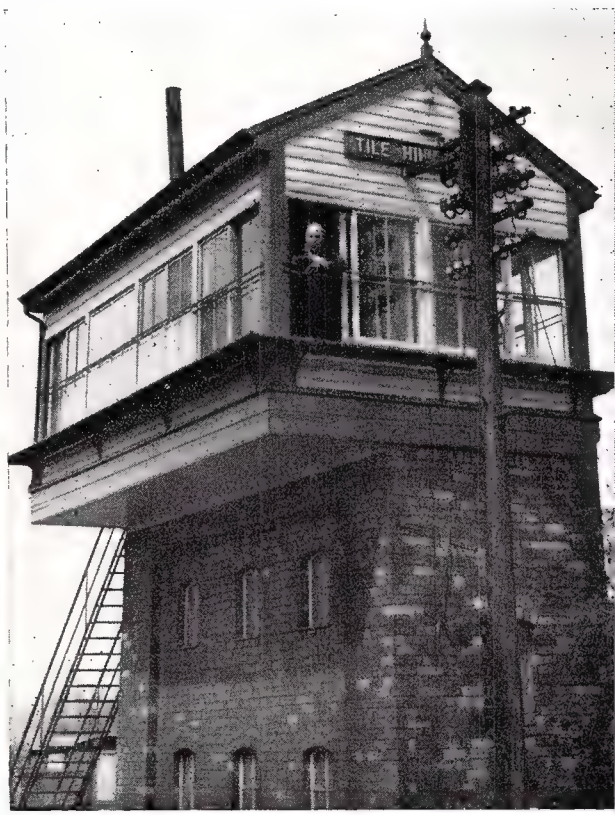
The first feature of note is the staggered platforms, separated by a level crossing. The track layout, while being very simple apart from the single slip, offers some interesting shunting problems. Note the unique bulge in the siding where it avoids the down home signal.

All the brickwork of the three chief buildings is in a bright mauve colour, the exact shade of the Modelcraft building paper sold as weathered brick (red), and which I never expected to see in real life ! The signal box is a typical L.N.W.R. structure and would be constructed in wood and card in the usual manner. The paintwork is in creamy white and magenta. The small shelters, indicated on the diagram as being on the up platform, consist of a waiting room and public conveniences and are, at the time of survey, under construction in a blue-tinged brick, with flat concrete roofs.

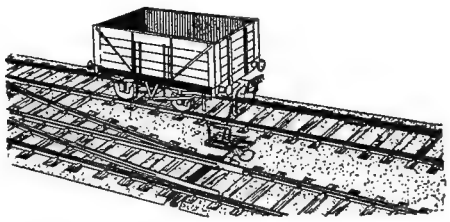
The down home signal is an old upper quadrant lattice-post affair, while the remainder are tubular-post signals of a modern design. All types of locos are to be seen through this station, as it is used as the relief line to the Trent Valley main line. Normally, however, stopping trains may consist of anything from a Patriot to a 2-6-2 tank, with from three to seven coaches. This station could be easily modelled down one wall of the room on a narrow shelf eighteen inches wide and eight feet or so long.



The signal box. Note the overhang over the main line.



Peco Topics



WIRING UNIVERSAL POINTS

by S. C. Pritchard

WHILE the Peco contact spring, soldered underneath the stockrail at the toe end of the point, provides a completely satisfactory electrical contact for a normal two-rail point, the extra springiness to be found in a universal point makes a separate changeover switch advisable. This can be easily constructed from strip brass and Peco contact springs.

Begin by letting a piece of ¼in. thick and 1¼in. square wood into the softboard base in line with the

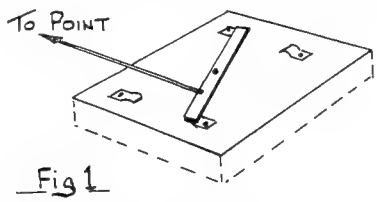


Fig 1

tiebar as shown. Next cut a piece of brass, of about 22 s.w.g., ⅛in. wide by 1in. long, and drill a small hole in the exact centre and another about ¼in. away. Pin the brass to the wood through the centre hole, and connect to the tiebar with a piece of fine stiff wire through the other hole. Throw the point, mark the position of the brass arm with pencil, then reverse and mark the second position. Next take four contact springs and pin them down so that the brass strip, at each end of its travel, lies over the diagonally opposite pair, as shown in Fig. 1. Note that the curve in the contact spring lies uppermost.

Wire as in Fig. 2. Take a wire from the frog to

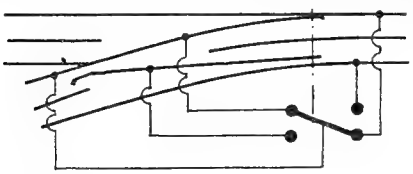


Fig 2

the moving arm, wires to the blades from one pair of contacts and to the running rails from the other pair, and note the correct order as shown in the diagram.

The third rails may simply be bonded together, but if it is desired to give isolation on the third rail, in addition to that provided by the normal two-rail circuit, a second switch is needed, identical with the first, and connected thereto by a piece of tiebar as shown in Fig. 3. In this case the wood base will measure 1¼in. x 2in. The wiring diagram is given in Fig. 4. We have shown the first switch in position, but to avoid confusion have left out the wiring for this switch, which is identical with Fig. 2.

On a universal layout, where two- and three-rail

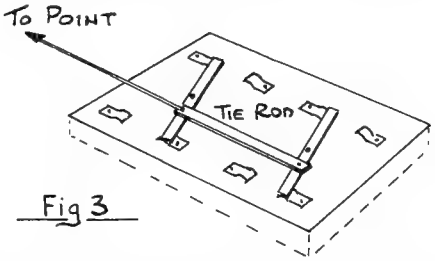


Fig 3

trains are in use, a switch must be provided to change the circuits from one to the other. A double pole double throw switch wired as in Fig. 5 is needed. Also, where isolating sections are required, two switches, or a double pole single throw switch, are

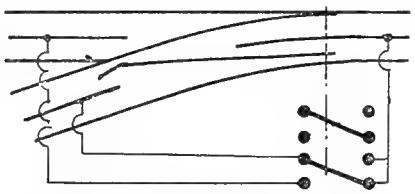


Fig 4

needed, as one running rail and the third rail must be broken. Before switching over from three-rail to two-rail it is essential to see that all stock not fitted with insulated wheels is safely stowed away in a siding and the point set for the main line, otherwise a dead short will occur. It will be seen that a truly universal layout, to provide for all types of pro-

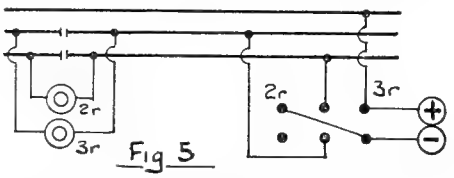
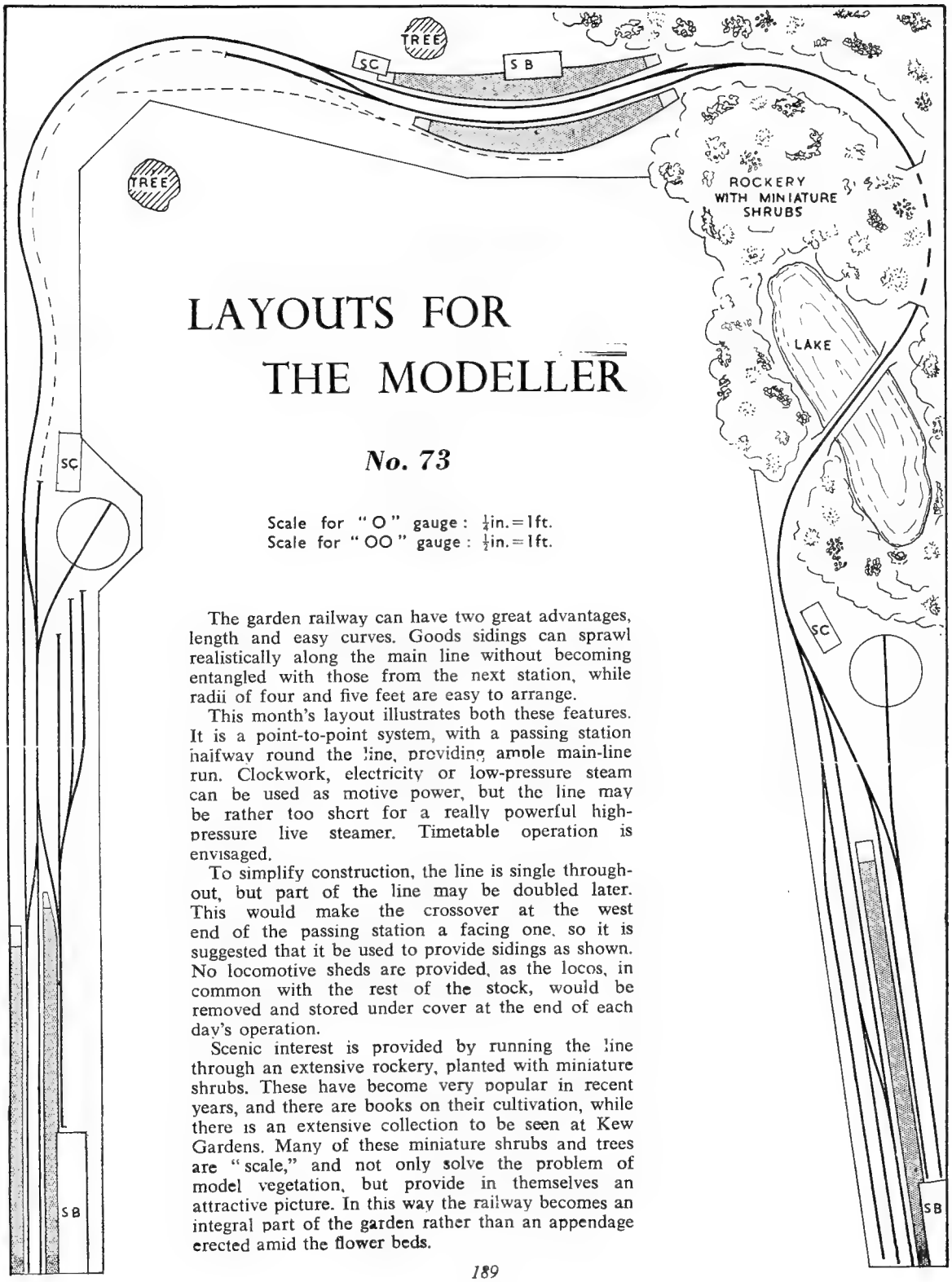


Fig 5

prietary and scale equipment, is somewhat complicated electrically, especially if it is desired to operate A.C. locomotives such as the Trix and Marklin, which require in addition special control equipment.



LAYOUTS FOR THE MODELLER

No. 73

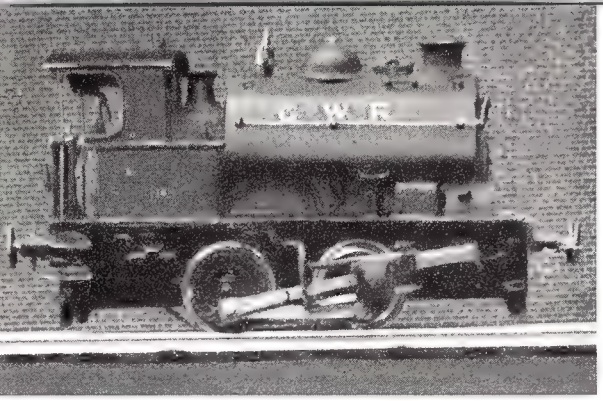
Scale for "O" gauge: ¼in.=1ft.
Scale for "OO" gauge: ¼in.=1ft.

The garden railway can have two great advantages, length and easy curves. Goods sidings can sprawl realistically along the main line without becoming entangled with those from the next station, while radii of four and five feet are easy to arrange.

This month's layout illustrates both these features. It is a point-to-point system, with a passing station halfway round the line, providing ample main-line run. Clockwork, electricity or low-pressure steam can be used as motive power, but the line may be rather too short for a really powerful high-pressure live steamer. Timetable operation is envisaged.

To simplify construction, the line is single throughout, but part of the line may be doubled later. This would make the crossover at the west end of the passing station a facing one, so it is suggested that it be used to provide sidings as shown. No locomotive sheds are provided, as the locos, in common with the rest of the stock, would be removed and stored under cover at the end of each day's operation.

Scenic interest is provided by running the line through an extensive rockery, planted with miniature shrubs. These have become very popular in recent years, and there are books on their cultivation, while there is an extensive collection to be seen at Kew Gardens. Many of these miniature shrubs and trees are "scale," and not only solve the problem of model vegetation, but provide in themselves an attractive picture. In this way the railway becomes an integral part of the garden rather than an appendage erected amid the flower beds.



Bernard Clayton's 4mm. model of a Swansea Harbour Trust 0-4-0 8T (G.W.R. No. 1144) (photo, B. Bettinson).

THE LEICESTER MODEL RAILWAY GROUP'S FOURTH EXHIBITION

Boot and Shoe Trades Hall, St. James's Street, August 29—September 3

FROM August 29 to September 3, Leicester Model Railway Group will be holding its fourth exhibition in the Boot and Shoe Trades Hall, St. James's Street, off Humberstone Gate, Leicester.

The show will be open from 2.30 p.m. to 9 p.m. each day except on Saturday, when the hours will be 10 a.m. to 9 p.m.

A great deal of work has gone into the preparation of this show, and running layouts in the "O" and "OO" gauges will be on view. These will be stud-contact and two-rail operation respectively. Meccano Limited have been invited to exhibit their Hornby Dublo layout.

In addition there will be displayed a comprehensive collection of models which have been constructed by members of the group, as well as models constructed by members of the Model Railway Club, Manchester Model Railway Society, and Nottingham and Northampton Model Railway Clubs. The accompanying photographs show a selection of the models constructed by the Leicester Model Railway Group.

Layouts

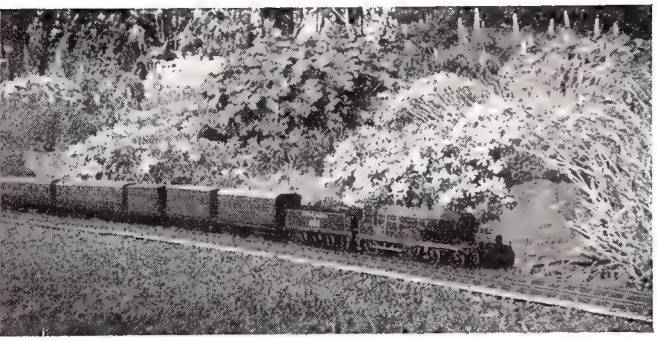
The 7mm. (coarse scale) stud-contact layout constructed by the "O" gauge section forms a continuous double-track oval, of which the part in the public view comprises a four-road station on the curve, known as "Little Drop More" (for no reason at all except that it seemed a suitable name to follow the group's original station, "Uppergumtree"), and sidings, and the centre of the layout is rolling countryside. Trains are marshalled and operated from the concealed portion at the rear.

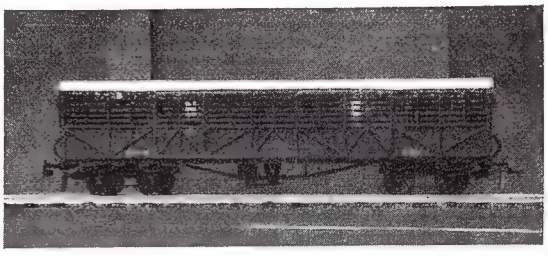
The 4mm. 16.5mm. gauge two-rail layout is entirely new, and forms a large continuous double-track oval with an island-platform station and a high-level branch line. The baseboard is ½in. Weyroc, and card sleepers are used, with rail soldered to pins which form the chairs. Bullhead rail and Peco cork ballast construction by the Group's "OO" section.

A new departure is an American layout, "HO" gauge, constructed and owned by Leicester member George Reffin, and based on a remote branch of the Southern Pacific. The baseboard of ½in. Weyroc measures 8ft. x 4ft. The line is worked by three locomotives: Pacific, 0-4-0 switcher, and 0-4-0 saddle tank. Conventional American passenger and freight trains will be run, and the layout is fully "scenified."

Members of other clubs are welcome and are asked to make themselves known at the door.

A popular Leicester prototype, the Crimson Rambler. This 4mm. scale L.M.S. compound was constructed by R. E. Grigg (photo, B. Bettinson).





Above: L.N.E. fish van, built by D. M. More in 4mm. scale (photo, B. Bettinson).

Left: L.S.W.R. train in 7mm. scale, posed on R. E. Tustin's garden railway (photo, R. E. Tustin).

CLUB NOTICE BOARD

featuring popular personalities and society news

Personality Parade No. 44

G. R. Driffield

Birmingham Model Railway Club
Bristol Railway Circle

Guy Driffield began, as most of the older hands did, in "O" gauge, owning a fair-sized Marklin tinplate layout in Germany before the war. However, when resuming the hobby he changed over to "OO," and has chosen as his prototype the Western Region of British Railway, with a probable influx of German Federal Railways stock. He intends to add overhead electric wires to the layout, and so hopes that the modernization plans will in due course bring the prototype into line.

He is a schoolmaster by profession and is at present living in lodgings, preparing plans for what he hopes will be a fairly elaborate system, and producing super-detail passenger stock in competition with other members of the Birmingham Model Railway Club, of which he is secretary.

His other interest, photography, is of considerable assistance to him in his modelling activities.

NOTES AND NEWS

Copy for these columns must be received five weeks before publication.

THAMES VALLEY MODEL RAILWAY CLUB

It is proposed to form a model railway club with the above name, catering for enthusiasts in the Twickenham and neighbouring districts (e.g. Richmond). It is hoped that all interested enthusiasts will write to Mr. L. V. Weedon, 27 Cranmer Road, Hampton Hill, Middlesex.

Railway enthusiasts who are as yet not model builders would be also welcomed as prospective members. Please write in now and let us see if this district can establish an amenity hitherto sadly lacking!

S.a.e. with letters, please.

THE BIRMINGHAM MODEL RAILWAY CLUB

The club magazine has now resumed publication after a lapse of some little while. At present it is hoped to produce an issue every two months, though this will naturally depend upon material being available. The first issue of the reconstituted journal, which, in common with most club publications, takes the form of duplicated sheets stapled together, deals with many aspects of the hobby as they relate to members of the Birmingham club. We look forward to seeing further issues of this excellent publication.

Work on the club's 16.5 gauge layout is beginning to show fruit. The first sections are now in place and some running has been obtained. It is hoped that during the forthcoming session the layout will become fully operational.

CANTERBURY AND DISTRICT MINIATURE RAILWAY CLUB

The club has now achieved the first part of its programme by securing its headquarters in Canterbury, situated on the top floor at 10 North Lane, close by the Westgate Towers. There it has two newly decorated rooms with the option on a third should the need arise. Electric lighting, which is being installed by members, should be complete by the time these notes appear. Baseboards for the club layout are partly complete, and under the fatherly eye of Mr. Davies trackwork should soon be under way.

In the meantime, much progress is being made by Mr. French and Mr. Ovenden in the construction of the multiple live-steam track, which it is anticipated will be fully operational by next spring.

Arrangements are being made for the club to visit the M.E. exhibition this month, further details of which will be gladly supplied by the hon. secretary, Mr. E. W. Maplesden-Young, "Vernon Cottage," Babs Oak Hill, Sturry, near Canterbury, Kent (tel. Sturry 267).

NORTHOLT MODEL RAILWAY CLUB

The club has arranged to hold a full exhibition, showing its activities, at the Northolt Village Community Centre on September 10, and is inviting other clubs and societies known to it to take part. It is hoped that all interested in the hobby will visit this exhibition and see what can be done by a number of enthusiasts fortunate enough to have a permanent layout.

Inquiries to the hon. secretary, Mr. R. G. Turner, 5 Craven Avenue, Southall, Middx (telephone SOUthall 4265).

THE TALYLLYN RAILWAY PRESERVATION SOCIETY

To celebrate the end of the ninetieth consecutive season of operating on the Talyllyn Railway, a special train will leave Paddington about 7.15 a.m. on Saturday, September 24, for Towyn. An ex-L.S.W.R. T9 class locomotive, No. 3034, will haul the train between Shrewsbury and Towyn and it is hoped that a "Star" will be used for the first portion of the run. The train will call at Greenford, High Wycombe, Birmingham and Shrewsbury to pick up passengers. Fares will be 50/- from Paddington, Greenford and High Wycombe, 25/6 from Birmingham, and the fare from Shrewsbury is under discussion. The train will consist of corridor stock with a cafeteria car. The return journey will commence at 11.30 p.m., arriving London early Sunday morning.

The above fares will include itineraries, and bookings should be sent to T. W. Robertson, 23 Portway, Ewell, Surrey. Full details will be sent as soon as available to all those booking. Others desirous of having more details before booking should forward a stamped addressed envelope.

It is hoped that as many as possible will avail themselves of this opportunity of travelling behind these interesting and historic locomotives, and, of course, all passengers will be assured of a welcome on the Talyllyn Railway.

AUGUST MEETINGS

BOLTON MODEL RAILWAY CIRCLE
10 15 Ivanhoe Street. Subject: "Colliery and industrial lines."

MANCHESTER MODEL RAILWAY SOCIETY
13 Open meeting at the hut.

CANTERBURY AND DISTRICT MINIATURE RAILWAY CLUB
9 General meeting.
23 General meeting.

THE MODEL RAILWAY CLUB
18 Track night (all groups).

NEWS AND VIEWS OF TRADE INTEREST TRADE

MOST of the items that appear in these columns do so because they have been but recently produced. It is therefore something of a change to describe a product which first appeared on the market very many years ago, and may well be regarded as the foundation of our hobby. We refer, of course, to Bassett-Lowke's famous permanent way, for this track was first introduced no less than fifty years ago, and yet some of those early products are still in use. Through the years, detail improvements have been made, both in design and materials, but the basic conception of a miniature replica of the prototype bullhead track remains.

Thousands of satisfied users in the last half-century have proved that this track can be laid with ease, will stand up to hard use under the most arduous conditions, and is thus eminently suited for outdoor use on a garden railway, as can be seen on John L. Ray's Crewchester line, described in this issue.

The track consists of bullhead rail, available in brass and coated steel sections, chairs in two patterns, slide-on and keyed (the latter requiring a miniature wooden key as in the prototype), wooden sleepers and battens. For points, check-rail chairs are provided to enable these items to be accurately assembled, and slide-rail chairs are available in two patterns. For electric layouts a special third-rail chair is provided to take standard bullhead rail. Three special tools are made to assist the constructor in easy assembly : a triangular track gauge, a punch for spikes and a fixture for threading slide-on chairs—the last-named being a recent product of great value, as the threading of several hundred chairs by hand is apt to be a painful business, and Bassett-Lowke's jig is a most welcome innovation.

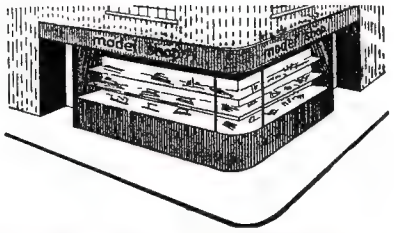
Bassett-Lowke "O" gauge track components and tools. Left : punch, point lever, track gauge, chair threading fixture. Centre : running rail, conductor rail, slide rail and check rail chairs. Right : rail, fishplates, sleepers and battens.

The assembly of the track is fully covered in a small booklet costing 6d. This is included in the track kit, which also contains a full set of tools and enough material to enable the beginner to lay six yards of track.

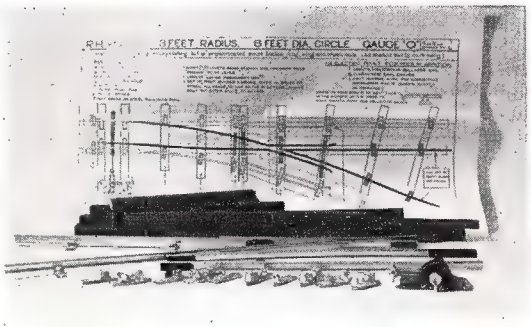
A point kit is also supplied, but we should mention that this includes frog, wing-rails and point blades,

Bassett-Lowke Castle class in "O" gauge. Note the superb motion, authentic outline, fine wheels and under-boiler daylight.

WINDOW



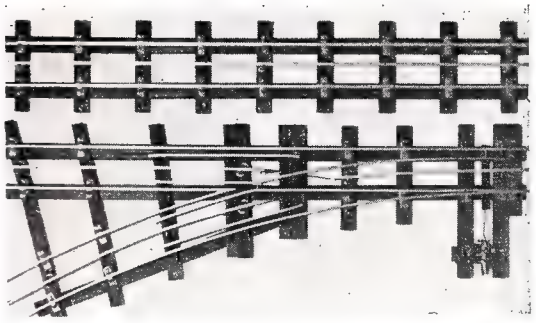
chairs and hand point lever, together with the appropriate sleepers cut to length. The stock rails are not included, as these are merely pieces of standard rail.



Bassett-Lowke " O " gauge point kit.

Ready-assembled track and points are available in 18in. lengths, straight and curved. The best quality is supplied with brass rail and nine sleepers to the length, but a cheaper type, using steel rail and fewer sleepers, is also provided. Both types can be obtained with or without the centre third rail.

Full details of all these items are given in Bassett-Lowke's catalogue, which costs two shillings, together with a selection of layout designs using their ready-assembled tracks.



Bassett-Lowke " O " gauge assembled track and point-work.

CATALOGUE RECEIVED

BRADSHAW MODEL PRODUCTS LTD., 1/6.

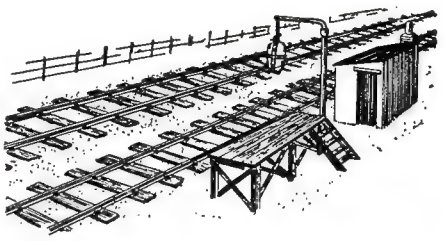
The latest edition of this popular catalogue is better than ever before: packed with clear, sharp illustrations of the wide range of model railway products stocked by Bradshaws.

CHANGE OF ADDRESS

C.C.W. Productions wish to state that their address for all communications is now C.C.W. PRODUCTIONS, BRIDLE PATH, WATFORD JUNCTION, HERTS.

Bassett-Lowke " O " gauge Big Prairie, another authentic model. This model and the Castle on the facing page were reviewed in our June issue.

READERS' LETTERS



This space is reserved for the free exchange of readers' ideas and opinions

AN AMBITIOUS "OO" SYSTEM

I was very interested in Bill Schopp's layout in the June issue; it looks like the sort of layout which many of us would love to operate but hate to build. As he says, it is really too much for one man in ordinary circumstances to tackle, and would be no light task for two or three. In any case, it seems doubtful whether one man on his own could realize the operating potentialities of such a large system.

All the same, it is a very interesting adaptation of the American idea to the British one (am I right in guessing that the client is an Australian?). Ken Brennan may well be right about the tracks that cross on the level. They certainly have mayhem-creating possibilities. On the other hand, it seems common practice in the States to accept these as adding to the operating interest, which they certainly do, and it should not be unduly difficult to interlock the power supplies to opposing movements.

No, it seems to me that cost is what puts this type of layout out of court for most of us. As to space, well, you either have it or not, but if you have, and want to fill it, you have to reckon up the price. He would be a brave man who undertook to build the layout that Bill has designed without using prefabricated track of some description, and prefabricated track in this country costs, say, 7/6 a yard in nickel silver, including spikes, ballast, etc. I know you do not have to buy the lot at once, but even at four yards a week progress would be virtually non-existent, and 30/- a week is more than most of us can budget for over a period. I haven't counted the number of turnouts—frankly I am scared to.

The market for model goods in England is—relatively—so restricted that it seems doubtful whether we shall ever come down to prices comparable with those in the U.S.A., which, for track, are about two-thirds of ours. In terms of relative purchasing power as between John Bull and John Q. Public, that is the time which John Q. and John B. have to work to earn enough to pay for a given article, the contrast is even greater.

All of which is, of course, tied up with more far-reaching matters than model railways, but it seems to be largely the reason why most of us have to look upon layouts like Bill Schopp's with affectionate regret.

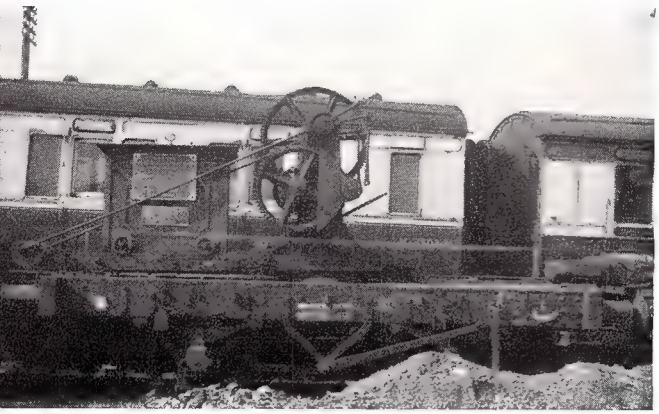
Bristol. J. HARRISON.

CALEDONIAN RAILWAY CRANE TRUCK

The recent interest in small yard and travelling cranes prompts me to enclose these two views of a Caledonian Railway four-wheeled crane truck with six-wheeled crane runner, M.354972 and 321671 respectively. The jib is carried on the runner while the set is running, but fits into a yoke on the winder unit when needed for use. The small trolley at the rear of the crane is for balancing the crane and is movable. Livery is black with white letters and the warning plates on the crane itself have white letters on a red background.

The 3rd/brake corridor seen behind the runner is a G.S.W. bogie type (SC6954M).

Glasgow. J. A. N. EMSLIE.



GEORGE DOW

On July 1, George Dow, the popular public relations and publicity officer of the London Midland Region, became chief assistant (sales) in the chief commercial manager's department. This is a new post created for the development of passenger and freight business on the L.M.R.

George Dow has been connected with public relations since 1939, when he was appointed information officer of the L.N.E.R., being redesignated press relations officer five years later. On nationalization he became press relations officer of the Eastern and North-Eastern Regions, transferring to the London Midland in 1949.

We, however, know him best for his many books on railways, and his inimitable lectures to railway and model railway societies: his great collection of railway coats of arms is a particular favourite. He is president of the Historical Model Railway Society, past president of M.E.T.A., and is associated with many railway and model railway societies.

We feel sure that all our readers will join us in wishing Mr. Dow every success in his new position.

BOOK REVIEW

The Great Eastern Railway, by Cecil J. Allen (Ian Allan, 25/-).

This, the latest in Ian Allan's series of short histories of pre-group companies, fully lives up to the high standard set by its predecessors. The choice of author is particularly happy. Cecil J. Allen is an old G.E. man and, as many of our readers know, he is extremely readable. This readability stems from an orderly presentation of facts coupled with a complete mastery of his subject.

The Great Eastern was conceived in sections, nurtured by Hudson, and dogged in its early days by poverty and *Punch*, yet it became in due course a fine railway, whose only disadvantage was that its suburban services were far too popular for comfort. The steam services from Liverpool Street are at once the bane of the travelling public and the admiration of the enthusiast, who recognizes a near-miracle when he sees one. Those who would know more of this fine railway could not do better than buy this book.

All the principal items are covered: the construction of the main lines; locomotive history logically set out under the various engineers; rolling stock and train working; and concluding with a chapter on the G.E. story after grouping and nationalization. A useful appendix gives the dates of opening of the various sections, together with the company that built the section in question. A good index is provided.

H. A. BLUNT & SONS LTD.
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the new Hornby Dublo tank wagons, **5/3**; Tri-ang mail coach set, **21/-**; new Tri-ang bogie well wagon, **5/10**; Trix bogie baggage and guard's van, **11/6.**

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Bracket signals, price 13/6, will be available later.

Trix 1955 Year Book and Catalogue, price **2/6.**

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14 Canterbury Street, Gillingham, Kent
M.E.T.A. Dealer

Summer BARGAIN Sale

Here's a chance for you to stock your railway during the out-of-season period at wonderfully cheap prices.

Graham Farish locomotives, wagons, coaches. All at half list prices. We specialize in Hornby Dublo conversions and repairs.
THE MODEL SHOP, 92 Claypath, Durham

Gauge "O" steel permanent way (c'work or steam), 1/6 per 18in., turnouts 12/6. Bassett-Lowke clockwork "Prince Charles," £3/10/-; 12-volt compounds, £5/10/-. Graham Farish new "Golden Arrow," Merchant Navy locos, £4/15/-. Gaiety S/H G.W.R. 0-6-0, B.R. 0-6-2 tanks, 45/- ("OO" gauge 2-rail).
HATTON'S, 136 SMITHDOWN ROAD, LIVERPOOL, 15

The following items at reduced prices to clear: Graham Farish stock. Wagon-lit coaches, **15/-**; Pullman coaches (brake end), **20/-**; open or mineral wagons (3-rail) **2/-**, (2-rail) **3/-**; covered van (3-rail) **2/6**, (2-rail) **3/6**; brake van (3-rail) **3/-**, (2-rail) **4/-**. Postage **1/-** one coach, **6d.** extra for each coach; **6d.** on one wagon, **3d.** extra for each wagon or van.
ATTENBOROUGH MODEL RAILWAY, 82 Arkwright Street, Nottingham

Exley's bargain list now available for stamped addressed foolscap envelope. "O" and "OO" gauge in one list. Coaches, accessories, track parts, rolling stock, station equipment and oddments. All new but slightly imperfect. All goods tax free and at very reduced prices to clear.
EDWARD EXLEY & CO. (SALES) LTD., The Ridge, Eaton Hill, Baslow, Derbyshire

Hedges for "OO" and "O" gauge scenic work. Not rubber or metal. Can be cut, curved, etc., without losing effect or dropping to pieces—11¼in. lengths **1/2** each. Additional P. and P. surplus will be refunded.
W. H. MANNERS, 11 Station Road, Swinton, Lancashire

Reduced to clear. No longer being manufactured. Graham Farish 2-rail 3-plank wagons, 2/9 each; match trucks, 2/6 each; British Railways red suburban coaches—types available: all 1st, all 3rd, and 1st and 3rd, **15/-** each; Formo 3-rail brake vans, 2/9 each; steel side wagons, 2/- each; vans, 2/6 each, 7-plank wagons, 2/- each.
BAKERS MODEL SHOP, 14 Canterbury Street, Gillingham, Kent

Coach bogies: L.M.S., G.W.R., L.N.E.R. ("OO" gauge). 5/3 pair (scale or H/D wheels). Postage: one pair 3d.; two or more pairs post free.
C.C.W. Productions, Watford, Herts

BOBBY'S (Scale Model Railways), 83 Promenade, Bridlington. Meta dealer. Agents for Leeds Model, Peco, Acro, Nucro, Gem, Milbro, Wrenn, Kirdon, Hammant and Morgan, Hamblings, Bilteezi, Modelcraft, Walkers and Holtzapffel, Romford, S. and B., Stewart, Reidpath, Master Models, Exley, Bradshaw, Ratio, Rogerson, Bassett-Lowke, Trix, Tri-ang, Rovex, Erg, Rokal, Marklin, Anorma, Sevno, Jamieson, C.C.W., Scaloh, Skinley, Rivarossi, Percival Marshall, Ian Allan, Model Permanent Way Co., etc., Tri-ang official service agent. Goods sent to all parts of the world. Large stocks. Rapid mail-order service.

"OO" brass buffers, 1/6 per dozen. Elkway layout plans, 1/3 post free (during August only 1/-).
KILLICK MODEL RAILWAY PRODUCTIONS, Postern, Croft Road, Crowborough, Sussex.

"O" gauge scale track. Several makes from 5/- per yard. "OO" gauge Exley coaches from 15/- each. Tri-ang Transcontinental passenger set in perfect condition, 95/- ("1" gauge). Quantity of steel and tinplate track and points. Going cheap to clear. To be sold separately or in lots.
CRYSTAL PALACE MODEL RAILROADS, 24 Church Road, Upper Norwood, London, S.E.19 (opposite Granada Cinema).

Summer bargains! Second-hand G.E.R. (full passenger brake), 27/6, L.N.E.R. (litho brake end), 22/6; Marklin 0-4-0 (C/W mechanism), 27/6; "1" gauge Marklin 4-4-0, 77/6; similar L.N.W.R. "Renown."
DOUGLASS MODELS, Holywell Green, Halifax

"Railway Modeller" back numbers, 9d. each plus postage. November 1951—July 1952; December 1952; March 1953—September 1953; November 1953; April 1954—July 1955.
PECO TECHNICAL ADVICE BUREAU, Pecoway, Station Road, Seaton, Devon.

CLASSIFIED ADVERTISEMENTS

4d. per word Trade. 2d. per word Private.

TRADE

AMERICAN MAGAZINES. One year subscriptions: "Model Railroader" 39/-, "Model Trains" 28/6, "Railroad and Model Craftsmen" 39/-, "Trains" 39/-. Specimens 4/- each. Hobson, 79 Southbrook Road, Exeter.

YEOVIL. Railway modellers invited to call. Good stocks of Graham Farish, Peco, Rovex, Trix lineside accessories. Agents for Frog aeroplanes and X-acto hobby knives. "Hinks for Radio," 36 Middle Street, Yeovil.

WANTED drawing. G.W.R. 12-wheel engineering department crane. Drawing of G.W.R. match trucks for above. We undertake conversions of existing models. Inquiries for quotations welcome. Leng, 2d Melville Road, London, N.W.10.

IN STOCK. G.E.M. Flexi-track; per yard 2-rail 4/6, 3-rail 6/-. Points: L.H. and R.H. 2-rail 10/6, 3-rail 12/3. Leng, 2d, Melville Road, London, N.W.10.

BUY ALL your Peco products from us. All wagons kits in stock. The Stores, West Deeping, near Peterborough.

CRADDOCKS (ROMFORD) LTD. M.E.T.A. dealer. Offer you a large selection of all the products of the leading manufacturers: ABC, Anorma, Bradshaw, C.C.W., Exley, Erg, Gem, Hamblings, H & M, Jamiesons, Kirdon, K's, Peco, Ratio, Rivarossi, Romford, Walkers & Holtzapffel, Wrenn, etc. Main agents for Hornby Dublo, Tri-ang and Trix. Our mail order and credit sale terms assure you of service and satisfaction. Note. Only 5 per cent added for terms. Call, write or phone Romford 553, 82 South Street, Romford, Essex.

"NOTRE METIER"—French Railways illustrated weekly magazine. Articles, photographs, drawings on modern railway practice, railway history, holidays and sport in France. Annual subscriptions 28/- only, or send 1/- for specimen copy. Contours Ltd., 72 Newman Street, London, W.1.

DUBLO converted to 2-rail (bushed wheels): tanks 2-6-4 21/-, 0-6-2 15/-, Gresleys 23/-, Duchess 22/-. Guaranteed. Fleming, 152a, Lawrence Road, Liverpool 15.

PRIVATE

FOR SALE. Railway and tramway books and photographs. Railway coloured postcards and pictures, time-tables (public and working), tickets (railway and tramcar), guides and oddments. S.a.e. foolscap, Scaife. "The Ridge," Eaton Hill, Baslow, Derbyshire.

"OO" GAUGE Exley coaches, accessories, parts and sundries. S.a.e. foolscap, Thompson, "The Ridge," Eaton Hill, Baslow, Derbyshire.

"O" gauge Exley coaches, parts, track, sundries, Beeson and Exley locomotives. Considerable number of pre-1920 items, including G.W.R. "Sydney." Clockwork locomotives and track. S.a.e. foolscap, Lyell, "The Ridge," Eaton Hill, Baslow, Derbyshire.

FOR SALE. Large clockwork "O" railway in excellent order and with many items unused. Locomotives by Bassett-Lowke, Exley, Beeson, etc., including many old ones such as G.W.R. "Sydney" (approximately 1900). Wood wagons, stations, fittings, buildings, accessories, Brittain's figures and lineside equipment, Exley, Bassett-Lowke and L.M.C. coaches. Sale due to death of well-known owner. S.a.e. foolscap, "The Ridge," Baslow, Derbyshire.

HORNBY DUBLO engines, track, etc. S.a.e., details. Phillips, "Hasbro," Longfield Avenue, Longfield, Kent.

FOR SALE. "OO" gauge electric railway: four locos, carriages, many wagons, vans, numerous accessories, including points, motors, switches, controller and equipment. Dennis Taylor, 40 Landsdowne Road, Walthamstow, E.17.

HORNBY DUBLO equipment for sale. S.a.e. for list. Balch, 72 Welldon Crescent, Harrow, Middlesex.

WANTED. "O" gauge Hornby Southern Railway Schools class body and tender. "Eton." Would take complete locomotive if available. Good price paid. Currie, "The Ridge," Eaton Hill, Baslow, Derbyshire.

WANTED. "O" gauge Hornby Southern Railway Schools or L.N.E.R. "Hunt" electric or clockwork locomotive or body thereof, plus tender. Body should be in fair condition or repairable. Fair price paid. "The Ridge," Baslow, Derbyshire.

WANTED. "HO" gauge coaches by Reidpath, etc. L.M.S. particularly wanted, but any company considered. Details, price to Box No. 55/5.

FOR SALE. Hornby Dublo transformer and controller, as new 70/-, after August 9. 28 Beechwood Gardens, Slough, Bucks.

TWIN-TRIX BARGAINS—SETS, including double transformer controller and rails, **£8/10/-** (list price £12/6/-); American locos, **£3/10/-**; 4-6-2 Pacifics, **£6/19/6**; RAILS, **1/6**; points, 12/6; remote points and switch, **17/6** and **22/6**; express coaches (B.R., L.M.S., N.E.), **9/-**; B.R. scale coaches, **12/6**; UNUSED RAILS, **2/-**. **HORNBY DUBLO BARGAINS**—guaranteed SETS, including transformer and controller, **£7/10/-**; Gresley locos and tenders, **55/-**; B.R. 2-6-4 tanks, **57/6**; L.M.S. "Duchess of Athol," **57/6**; B.R. "Duchess of Montrose" and tenders, **60/-**; rails, **2/6**; half-rails, **1/9**; points, **7/6**; remote points, **15/-**; buffer stops, **1/9**. **GRAHAM FARISH**—NEW "Golden Arrow" and Merchant Navy locos and tenders, **£4/15/-**; new three-plank trucks, **2/6**; five- and seven-plank, **3/6**; S/H King locos, **£4/10/-**; M. Navy locos, **£3/19/6**; 5P5F locos, **£3/10/-**. NEW G.W.R. 0-6-0 pannier tank locos, **47/6**.
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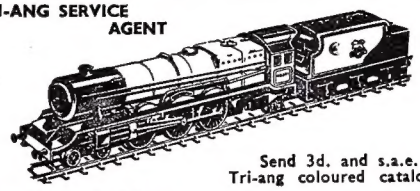

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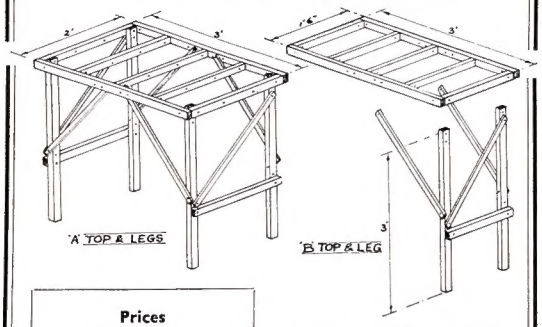

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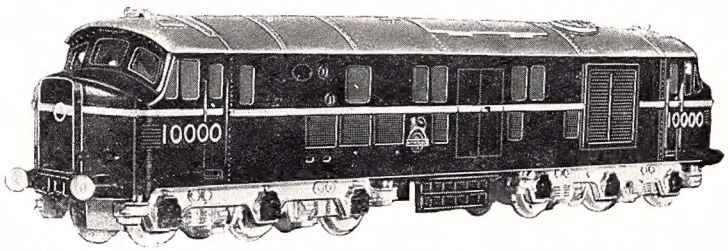

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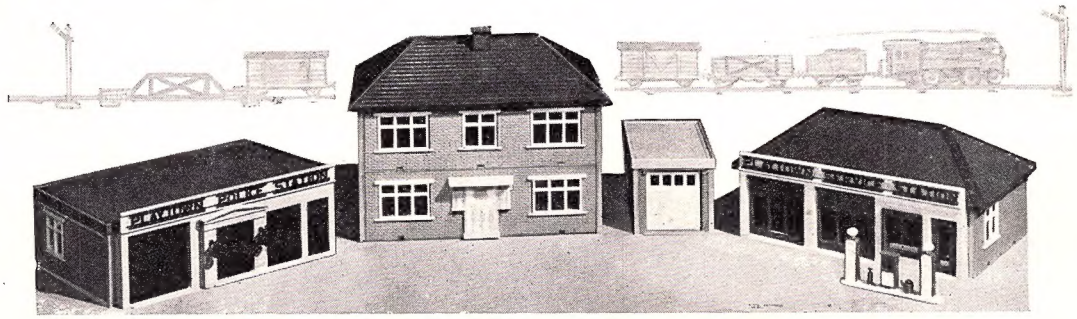

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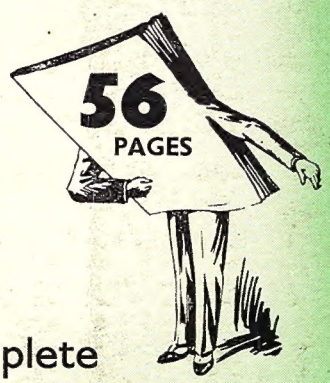

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